

SEQUENCE LISTING

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Oberste, M. Steven  
Maher, Kaija  
Kilpatrick, David R.  
Pallansch, Mark A.

<120> TYPING OF HUMAN NON-POLIO ENTEROVIRUSES

<130> 14114.0353U2

<150> PCT/US00/07828

<151> 2000-3-24

<150> 60/127,464

<151> 1999-3-31

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caagtgggtgc ctgggtataa catccaaaca cgtcatgtgc acaactacca ctccagaact	180
gaatccagta tcgaaaattt cttcggcgt tccgcgttg tagtggtaa aacatataaaa	240
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tacatgcgac acgtgaacaa aaatagcccc acagagatca taagcactt tcgtgtgtat	720
ttcaagccaa agcacgtgaa agcgtggta cccagaccac ccaggctatg tccataaaaa	780

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<211> 861	
<212> DNA	
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<223> E18, strain Metcalf	
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actatccaga ccagggcacgt ggttaaacttc cactcacgtt ctgaggtccac tatagaaaat	180
ttcatggggc gtgcagcatg tgggttcatg gatcagtata aatcaatgg agaagagacg	240
tccactgata gggttcgcagt gtggaccata aacataaggg agatggccca attaagaagg	300
aagtgtaaa tgttcacgta catgcgtttt gatatcgaga tgacaatggt cattaccagc	360
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aaggcatggg tgccccgacc accacgattt tgccccgtata taaacaaaag ggacgtaaac	780
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<212> DNA	
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<221> misc_feature	
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<223> E19, strain Burke	
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caagtcaatc ctatgtacac catgcagacc agacacgtga caaattacca ctgcgggtca	180
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<221> misc_feature	
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<223> E20, strain JV-1	
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caggttagtac cgagtatac catgc当地acc agacatgtc ggaatttcca cacaagatca	180
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ttt当地ataa ctagctcgca agatc当地tcc acgactgtt cacaggacgc acctgttctc	420
actcaccaa tcatgtacat cccacccgga gccc当地gtt ccaa当地tccagg tagggattac	480
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<212> DNA	
<213> Enterovirus	
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<221> misc_feature	
<222> (0)...(0)	
<223> E21, strain Farina	
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caggtgggtc cc当地gtatac cattc当地acg cggccacgtc tcaacttcca cacaagatcg	180
gagtcaacaa tt当地aaattt tatgtgtc当地 tccgc当地gtc tgc当地tacatc当地 cccgtacgg	240
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gtggc当地ac tgc当地aggaa gatggagatg tt当地acatca tgc当地tattga tt当地ggaaatg	360
acatttgtaa tc当地aaagctc cc当地gtatg tcaacggcat atgattcaga cacaccagcc	420
ctc当地ccacc aaataatgtc cgtgccc当地tgc gggggccccc当地 agccccc当地tca tt当地tggaggat	480
ttc当地cttgc agacatccac aaatccaaagc atattttggg ccc当地aggtaa cgc当地ccacca	540
cgctt当地tca tcc当地tattt gatgtgtggg aatgc当地tattt gcaat当地tta tgc当地tgg	600
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tatgcaagga acgtggattt tgagccacaa ggtgtactg aatcaagaga aaagataaca	840
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<210> 65
<211> 882
<212> DNA
<213> Enterovirus

<220>
<221> misc_feature
<222> (0)...(0)
<223> E24, strain De Camp

<400> 65
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caagttgtac cgggggacac catgcaaacc agacatgtta aaaacttca cacgcggtca      180
gaatcatctg tggaaaattt catgtcaga gcacgcgtgt tgcattatgt ggattaccac      240
acacaaaatg acagtggaa tggaaaatgcatcttgc ttatcaacac gagacaggta      300
gcacagctac gcaggaaaat tgagctgttc acatacacta gtttgcgtt cggaaatcaca      360
ttcgtgatca ccaccacaca gcagcaatcc acagctccc accccgacac tcctctgctg      420
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tggggcaat catccacaaa tcccgatata ttctggaccc agggtagcgc accacccaaa      540
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catttcactc aaaacggggt gtacgggttc aacactctga acaatatggg caaattatac      660
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<210> 66
<211> 876
<212> DNA
<213> Enterovirus

<220>
<221> misc_feature
<222> (0)...(0)
<223> E25, strain JV-4

<400> 66
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caggtatcc cgagcgcacac catgcaaact aggcatgtt tgaaccatca cattagatca      180
gagtcctcta ttgaaaactt cctgagcagg tccgcctgc tgcattatgtca catgtatggg      240
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gtgcagctaa ggcgcagact gggaaatgtt acatacatta gatttgcgtt tggaaatcact      360
tttgcataca ctagcacaca gggacaccgg actcaaaaga acaaggatac cccagtttt      420
acacacccaa tcatgtatgt gcccacagg ggcccaatcc ctgtatctt tgaagattat      480
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atgtcaattt ccttcatgag cgtaggaaac gcctattgtt actttacga cgggtggtca      600
cacttctcac aatcggtgtt gtatgggttc actacactca ataacatggg tcagttgtac      660
tttcgacacg tgaacaagga cacccttggc ccatacaata gcacgggtcg gtttacttc      720
aaacccaaac atgtgaaggc atgggtaccc agaccaccgc gcctgtgcga ctacgtttac      780
gcacataatg ttgacttcac accaaaagggtt gttactgaca gcagggacaa gatcaccctg      840
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<210> 67

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<211> 870  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E26, strain Coronel

<400> 67

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gtccccgagt	ataccgtaca	aactcgttgt	gtgaaaaact	tccacactcg	atcggagtc	180
tcaattgaga	acttttgtg	cagatcagct	tgcgacacaca	tgtcatcgta	tgaggcctc	240
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acacaccaag	taatgtacat	tccaccaggc	ggacctattc	cagctagcgt	tgaaagttat	480
gcctggcaaa	catccaccaa	cccaagcgtg	tttggacag	aaggaaatgc	ccccccacgc	540
atgtctatac	catttatcg	cattggtaat	gcctacagca	tgttctatga	cgatggggcc	600
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gtaagacacg	tgaatgcaac	cataccaaac	ttgatcagca	cagtcaaggat	atatttcaag	720
cccaagcacg	tttagggcttg	gattcctaga	ccgcccaggg	tgtgtcagta	catttacaag	780
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<210> 68  
 <211> 855  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E27, strain Bacon

<400> 68

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gtacagacac	gacatgttgc	caactcacac	atgaggacag	agtcgacaat	tgagaatttc	180
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tgtgagatgt	tcacatacat	gaggtttgac	tttggaaatgt	cgcttagtcat	caccagctat	360
caagaaccag	ggacaatcac	cacccaggat	atgcccgtcc	taaccacca	gattatgtat	420
gtgccgcag	gaggcccgg	cccagccaag	gctgacagtt	acgcgtggca	aacgtcaaca	480
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gcgtgggtcc	caagaccacc	gcgcttgc	ccgtatctga	ataagaggga	tgtcaactt	780
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caagtgtaca	atcat					855

<210> 69  
 <211> 876

<212> DNA  
 <213> Enterovirus  
  
 <220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E29, strain JV-10

<400> 69

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caagtggttc	ccagcgacac	tatgcaaacc	cgccatgtat	gtaactacca	caccagatct	180
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tttgtgatca	ctgggtcaca	agacaccagc	acacagacta	acacggatac	gccagtgcta	420
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<210> 70  
 <211> 876  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E30, strain Bastianni

<400> 70

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caagtggttc	ctagtgcacac	aatgcaaacc	cgacacgtgg	tcaacttcca	tactagatca	180
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gtggcacagt	tgaggcgcaa	gttggagatg	tttacgtata	tgagatttga	cctcgagatt	360
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<213> Enterovirus  
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 <221> misc\_feature  
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 <223> E30, strain Frater

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 caagtagtac ctatgtatac aatgc当地 cgc当地 tcaacttcca caccagatca 180  
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 gtagcacatg tgaggcgtaa actggagatg ttcacgtaca tgaggtttga cctcgagatc 360  
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 ttcaagccca agcacgtaaa ggcttgggtg cctcgccgc当地 caccgttatg tccatatttgc 780  
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<210> 72  
 <211> 877  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E30, strain Giles

<400> 72  
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 caagtggtgc caagc当地 acac catgcaaaaca aggacacgtag tcaacatgca tacaagatcc 180  
 gaatccacca tcgaaaattt catggaaagg gctgcttgc当地 tatacattgc gcaatacgcc 240  
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 gttgc当地 cccggatggaa gctggagactg ttacatatac tgaggtatga cttagaagg 360  
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 ttgaccaccacc aaattatgtt tgc当地 cccggccctt tcccatagg acacgaagac 480  
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 tcacatttta accagagtgg ggtgtatgca tacactacac taaacaacat ggtgc当地 cttta 660  
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gttgcgcaat tgaggagaaa gttggaaatg ttcacatatac tgaggtatga cctggaaatgc      360
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ttcgcctggc aaacatcgac taaccctagt gtctttggc ctgaaggaaa tgccccacca      540
cgcatgtcca ttccatttat gagtgtggc aatgcctact gcaatttttta cgatgggtgg      600
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ttcaaaccac aacatgttaa agcctggtc ccgcgagcac cacgactgtg cccatatttgc      780
tatgcaagga acgtgaactt taatgtgaa ggtgtactg actcccgaga aaagataacc      840
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caagtcaccc ccagcgacaa tcttcagacg cgccatgtta agaactatca ctcccgctct      180
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acatttgc tcaactagcaa gcaagatcaa gggacttcgc tatcacaaga catgccagtg      420
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agaatgtcca tcccattcat tagcataggg aatgcataca gcagcttcta cgacgggtgg      600
tcacatttca cccaaacaagg tggctatggc tataatacac tgaacaagat gggtaagttg      660
tttgcgttggc atgtgaataa agaaacacca acccatgtga cgagcacat acgtgttat      720
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caggttaccc cgagtgatac aatgcaaact agacatgtac acaacttcca caccagatcg      180
gagtctagca tcgagaactt cctcagtaga gcagcttgc tgtacatagg gaaatatagt      240
agcaatgcaa caacacaaga tgaacaatac atgtcatgga caattaatac cagacagatg      300
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tgccacccaa tcatgtatgt gccacctggt gggccggtgc ctaagagtgt tcatgtactc      480
acatggcaaa cctctactaa ccctagtgcc ttttggtag aaggcaatgc accaccgaga      540
atgaccattc cattcattag tatagggAAC gcctacagca gcttttatga tggctggtca      600
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gtgagacaag tgaacctaaa agcccctatg ccagtca gtagcattag gatctatttc      720
aaacccaagc atatcaaagc ttgggtaccc agaccaccgc gtctatgtaa gtacctgaag      780
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<210> 76
<211> 843
<212> DNA
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<223> E33, strain Toluca-3

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ggccctgcaa actctgagag cgtgcctgct ctcactgcgg tagaaactgg acacacgtca      120
caggtgacac caagtgatac aatgcagacc agacacgtac acaacttcca cacacggtcc      180
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cactactcac agacgggggt gtaggtttac aacacacccaa acgacatggg ccaatttattt      660
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<212> DNA
<213> Enterovirus

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gtgccagcat	tgactgctgt	ggagacggga	gcttctggtc	aagccatacc	cagcgacgtg	180
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gttggaaactg	gtgcaacttc	caacactgaa	ccagaagaag	ccatacaaac	tcgcacagta	180
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aacttttta	aatggacaat	taatactaag	tctttgtcc	agtttagaag	aaagctggaa	360
ttattcacat	accttaggtt	tgatgctgaa	atcaccatac	tcacaactgt	ggcagtaaat	420
ggttataatg	acagcacata	catgggtctc	cctgacttga	cactccaagc	aatgtttgt	480
ccaaactggtg	ctcttactcc	aaaggagcc	gattcatttc	attggcaatc	aggcagtaat	540
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gcacatgata aatacgcaag ttggccaaatc acgactagaa aagttgcccactgcgcagg 300
aagctggagt tcttaccta cctgcgggtt gatctcgaga tcacgttgcgt gatcacgagc 360
gcccagatca catccacgaa caaaaaccag gatgccccag tactcacaca tcaggtgtatg 420
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attagtgtgg gcaacgccta cagcagctt tacgacgggt ggtcacactt tgaacaaacc 600
ggggtatatg gattcaatac ccttaataat atggggactt tgtacgcag gcacgttaac 660
ggtgctagtc cggggccagt caagagcacc attaggatat atatgaaacc taaacatgtg 720
aaagcgtgga tacctaggcc cccacgggtt tgcactatg taaaatctgg caacgtcaac 780
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<210> 80
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1 5

<210> 81
<211> 7
<212> PRT
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<223> Xaa(Position 5) = Pro or Thr

<400> 81
Met Tyr Xaa Pro Xaa Gly Ala
1 5

<210> 82
<211> 7
<212> PRT
<213> Enterovirus

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<223> Xaa(Position 3) = Gln or His

<400> 82
Phe Gly Xaa Gln Ser Gly Ala
1 5

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<210> 83  
<211> 7  
<212> PRT  
<213> Enterovirus

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<400> 83  
Thr Ala Xaa Glu Thr Gly His  
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<210> 84  
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<212> PRT  
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<223> Xaa (Position 7) = Ala or Val

<400> 84  
Thr Ala Val Glu Thr Gly Xaa  
1 5

<210> 85  
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<400> 85  
Gln Ala Ala Glu Thr Gly Ala  
1 5

<210> 86  
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<212> PRT  
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<223> Xaa (Position 3) = Ile or Val

<223> Xaa (Position 7) = Ala or Gly

<400> 86  
Met Xaa Xaa Pro Pro Gly Xaa  
1 5

## SEQUENCE LISTING

<110> THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES CENTERS FOR DISEASE CONTROL AND PREVENTION  
Oberste, M. Steven  
Maher, Kaija  
Kilpatrick, David R.  
Pallansch, Mark A.

<120> TYPING OF HUMAN ENTEROVIRUSES

<130> 68018/PCT

<140> PCT/US00/07828  
<141> 2000-03-24

<150> US 60/127,464  
<151> 1999-03-31

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19

<210> 21

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<221> modified\_base  
<222> (6)...(0)  
<223> Inosine

<221> modified\_base  
<222> (9)...(0)  
<223> Inosine

<221> modified\_base  
<222> (15)...(0)  
<223> Inosine

<223> UNKNOWN

<400> 21

cargcngcng aracnggngc

20

<210> 22

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<221> modified\_base  
<222> (2)...(0)  
<223> Inosine

<221> modified\_base  
<222> (5)...(0)  
<223> Inosine

<221> modified\_base  
<222> (8)...(0)  
<223> Inosine

<221> modified\_base

<222> (11)...(0)  
 <223> Inosine

<223> UNKNOWN

<400> 22

cnccnngngg nayrwacat

19

<210> 23

<211> 888

<212> DNA

<213> Enterovirus

<220>

<221> misc\_feature

<222> (0)...(0)

<223> CA1, strain Tomkins

<400> 23

ggattggcg attctattga ggctgccatt gacagcatca	cacaaaatgc actaaccact	60
gtacaaaata caacacaatc aggacctaact cattcaaag aagttccagc	attaacagca	120
gtggaaacag gtgctactag tcaagtagaa ccaggtact	tgattgaaac cagacatgtt	180
ataaacatga gacaaagatc tgaagcatct atcgaatctt	tcttggccg atccgcatgt	240
gttgcgatac ttgggttgc aaacgcggaaa ccaactgaca	caaacaccaa acaattgttc	300
aaaacatggg gaatattcata tttagaaact caccactca	gaagaaaact tgagttctt	360
acgtactcaa ggtttgattt ggaatgacc atagtaatta	cagagagggt tttcaatgca	420
gtcaatgtcc cattgcgcaa ttatgtgtac caaataatgt	acgttcccc aggtgctcca	480
gaaccacaaat catggatga ttacacgtgg caatcttcta	ccaaaccatc aatattctac	540
accactggaa atgctcctcc cagagtgtca attccattt	ttgaaatagg gtctgcata	600
tcacactttt atgatggttt ctcacagatt cctcttgact	caatcagtgc tggagcaagt	660
aataagtatg gttacacttc aatcaatgac tttgtaccc	tggcaattag aatagtaaat	720
gaatatgacc cagtgcgaat ggtgcggaa gcccggatgt	atattaaacc caaacatgtt	780
cgcatgtgtt gccccagacc accacgggcc atgccttaca	agaatagcac agtggatttc	840
gaccatcag caactgtat gacccaagtc gcagacatca	ggacgtat	888

<210> 24

<211> 882

<212> DNA

<213> Enterovirus

<220>

<221> misc\_feature

<222> (0)...(0)

<223> CA3, strain Olson

<400> 24

ggagatccag tggaaagactt aatcgccaaat acagttgcta	ggactctaga gagaataacc	60
tctccaactc ataatacacaac ggcaggcaac accaccgtta	gcgagcacag catcggtacc	120
ggttcagtgc ctgcgttgca agctgctgag actggggctt	cgtctaacac cacagatgg	180
agtatgatag aaacacgggtg tgggttcaat aggaatggag	tgattgagac tagcatcaac	240
catttcttct cccgagcggg gcttgggaa gtgtgttgcaca	tacttgcatttgg aggcacactca	300
aaaggctttt aagtttggga tatagacatc atgggttttgc	ttcagcttgc cagaaagcta	360
gagatgttca cctacatgcg gttcaacgct gaattcacct	ttgtcgccac tttgagtgtac	420
ggaacaactc cccatataat gttgcataac atgtatgtgc	cccctggagc tcccaaacc	480
caggaaagag attcattcca atggcagact gcaaccaacc	catccgttgc tgcgaaaatg	540
agtgcaccctc ctccgcgaat ttcatgttgccttgc	cttgcacatgc ctaccatgtt	600
ttttatgtat ggtacccaaat ttgtatgtat agaccacaga	ccctctaattcg tccctacgg	660
caatgccccca ataacatgtt gggcacatc gcggtgcgc	ttgttagcaa gacgcctgc	720
gagagagact tgcggtccg tggatcatg aaactgaagc	atgtgcgcgc atgggtaccc	780
cgaccatcaa ggtcacagcc ttacgttgc aagaactacc	ccaaactatga tggaaacccaa	840
atcggtccca gtgcggaaaga tcgagaagac ataaagaaca	ca	882

<210> 25

<211> 915  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> CA4, strain High Point

<400> 25

ggtgatgcaa	tcgctgatgc	tatacaaaac	acagttacat	ctactataca	gagagtcaca	60
accaacactg	ttgggcaaga	tgcaacagct	gctaacacag	cacccagctc	tcatagttg	120
aacactggcc	tagtcccgc	gcttcaagct	gctgagacag	gagcttcatc	cacagccacg	180
gatggaaatt	tgattgagac	tagatgttt	gtaaaactcca	atggtacacg	tgaaaccac	240
attgagcatt	tcttctctag	gtcaggcgt	gtgggagtt	tggaggtaga	tgatacgggt	300
actagtggca	agggattctc	aaactggac	attgacatca	tggcgttgt	gcaactgcgc	360
cgtaaactcg	aggcattac	atatatgcgg	ttcgacgcag	agtttacctt	tgtcaccaat	420
ttggagaacg	ggctcacgaa	taatagtgt	atacagtaca	tgtatgtacc	acctggagcg	480
cctaaaccgg	atgcccggga	atcattccag	tggcaaactg	caaccaatcc	gtcagtctt	540
caaaaaatgg	acagtccgccc	acctcaagtt	tcaagtaccct	tcatgtcacc	agccagtgcc	600
tatcaatgtt	tctatgacgg	ttaccccacc	tttggggccc	actcggagac	atctaattct	660
tcttacggc	aatgtcccaa	taatatgctg	ggaacattct	cggccagggt	tgttagcaag	720
caaataccca	atcagaaatt	ccagatccgt	atttatctac	ggctgaagag	ggtgaggcg	780
ttgatcccc	gacccttgag	atcgcagccg	tacatttaca	gaaactaccc	cacctatgg	840
actaccatcc	aatacctggc	caaagatagg	cgcaagatca	ctgaaactga	ttataatgct	900
gaacagcgc	cgcat					915

<210> 26

<211> 885  
 <212> DNA  
 <213> Enterovirus

<220>

<221> misc\_feature  
 <222> (0)...(0)  
 <223> CA5, strain Swartz

<400> 26

ggcagaccaa	ttgcagatat	aatagaagga	gcagtagctc	aaactaccac	cagagcacta	60
agtggaccaa	ttcagccagt	gacagcggcc	aacacctctc	ccagttcaca	tcggcttgg	120
acggggcaag	tgccagctt	gcaagcagca	gaaacggag	ccaccccgaa	tgcgaccgac	180
gagagtttg	ttgaaaccag	gtgtgtgtc	aacagacatg	gagtcatgga	aactagcatt	240
gaacacttct	tttcacgctc	aggcttggca	ggaattttga	taatttggaa	ctccggtaact	300
tccacgaaag	gctacgccc	ttggaaatc	gatgttatgg	gatttgc	gctgaggcgt	360
aaactagaga	tgttacata	catgcgattt	gatgcagagt	tcacccctt	cacagcagaa	420
aggaatggca	acaccagccc	aataccatc	cagatcatgt	atgtccccc	cgagcccc	480
gtccctactg	gtagggagac	attccaatgg	caaacagcga	ccaatccatc	cgtgatctca	540
aagatgactg	atccaccagc	ccaggtgtct	gtaccattta	tgagccc	cagtacttat	600
caatggttct	acgatggcta	ccccacgttc	ggagaagttc	cagtgactac	gaacttgaac	660
tatggacagt	gcccaaacaa	caaaatggc	acttctgca	tccgc	atgttgg	720
tctacaggca	aggacgtcac	tgtgcgcatt	ttcatgaagt	tgaagcatgt	gctgccc	780
gtgccaaggc	ccatcaggag	ccagccttac	ttgttaaaga	attatccaa	cttgcacaag	840
tcaaataattt	tagacgc	atcgaacagg	acatatacca	ccact		885

<210> 27

<211> 915  
 <212> DNA  
 <213> Enterovirus

<220>

<221> misc\_feature  
 <222> (0)...(0)  
 <223> CA6, strain Gdula

&lt;400&gt; 27

aatgacccca	tttcaaattgc	aatagaaaaat	gctgtgagca	cactcgctga	caccacgata	60
tcacgttta	cagcgccaa	cactgctgct	agctccatt	cccttggta	tggacgcgtg	120
ccggcggtgc	aggctgcgg	gacagggca	agttccaacg	ctagcgatga	gaacctgtatt	180
gaaactcggtt	gtgtatgaa	tagaaatgga	gttaacgaag	caagtgtaga	acacttctac	240
tcccgtgcag	ggctagtagg	agttgtggag	gtgaaagact	caggcactag	tcaggacggg	300
tacacgggt	ggccataga	tgtatggc	tttgcacac	agcggcgc	gttagagcta	360
tctacttaca	tgcgttta	cgctgaattt	acctttgtgt	ccaatctcaa	tgacagcaca	420
acacccggca	tgctattgc	gtacatgtac	gtgccggcgg	gtgcgc	accagacgg	480
aggaagtcat	atcaatggca	aacagccacc	aacccttcaa	tattcgcaaa	gtttagtgc	540
ccacggcccc	aagtgtctgt	cccatatcg	tcacccggcgt	cagctacca	gtgggttac	600
gatggttacc	ccacgtttgg	cgaacacaag	caagctacta	atttacaata	cggtcagtg	660
cctaacaaca	tgatggggca	ttttgcattt	cggacagtta	gtgaatccac	caccgggaaa	720
aatgtccatg	tccgggtgt	catgagaatt	aagcacgtaa	gagcatgggt	gcccagac	780
ttcagatccc	aagtttacat	ggtcaaaaaac	tacccgacat	acagccaaac	aatatccaat	840
actgcagccc	atcgctcgag	cataaccact	acggactatg	agggtggcgt	accagcaaac	900
ccgcagagaa	ctttt					915

&lt;210&gt; 28

&lt;211&gt; 888

&lt;212&gt; DNA

&lt;213&gt; Enterovirus

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (0)...(0)

&lt;223&gt; CA7, strain AB-IV

&lt;400&gt; 28

ggagacgaaa	tactcgacct	aatcgagagt	gctgtacaga	ataccactaa	agccattacc	60
agctcaatcg	acaccaaaac	ttgtgctaac	actcaagcta	gccacatcg	tataggctt	120
ggggaggttc	ccgcttca	agctgctgag	acaggatcg	cttcgctcg	ttcgacaaag	180
aacatgatag	aaacaagggt	tgtcgtaaac	aaacacagca	cagggaaac	cagcattaca	240
aacttctact	ccagggcggg	cctagtgggg	gtgtgaaca	tgccagtaca	aggaaccagc	300
aacacaaagg	gttgcgaaa	gtggggata	gatataatgg	gcttgc	gatgaggcgc	360
aaacttgagc	tcatgacata	catgagattc	tccgcccagt	ttacgttgc	acccagcact	420
cctggggag	agactactaa	ccttatactg	caatacatgt	atgcac	cggagctccg	480
ctgccaacca	ggcgggattc	atacgaatgg	caaacatcca	ctaaccctc	tattatcagc	540
aagatggcgg	acccacccgc	tcaggtatcg	gttccattcc	tttccctgc	atcagcatat	600
cagtggttt	atgtggta	ccccacattt	ggaaaacacc	caatagatca	ggacttccaa	660
tatggcatgt	gccccaaacaa	catgatgggc	acattctgt	tgcgc	catgtatcggtgg	720
aaaccgaccc	aatcagttac	catacgata	tacatgagat	taaagcatat	ccgtgc	780
gtgccccggc	cactgaggag	tcagaattac	actatgagga	attaccgaa	ctacaacggg	840
ggcgaataaa	aatgtacatc	aaaaagcaga	gctaccataa	caaccta		888

&lt;210&gt; 29

&lt;211&gt; 882

&lt;212&gt; DNA

&lt;213&gt; Enterovirus

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (0)...(0)

&lt;223&gt; CA8, strain Donovan

&lt;400&gt; 29

ggagattcca	ttgaagacat	aataagcaac	actgtcaccc	gtacactgca	acaaatcagt	60
ccccatcac	acgacactac	agcagccaa	acctcagtga	gtaatcataa	aattggta	120
ggggatgtcc	cagcttcca	agctgcagag	actggcgcta	cttccaatgc	ctcagacgag	180
aacatgattt	agacacgtat	tgtttaat	cgcaatgggg	ttgtggaaac	tagttggac	240
catttcttt	caagagcagg	ccttgggg	gtgatcaatg	tgcaagatgg	cggcactcag	300
aagggtttt	aagtgtggg	catagatgtc	atgggtttt	ttcaactcag	gaggaagttg	360
gagatgttca	cgtacatgag	gttcaacg	gagttcacat	tcgtatccac	actcgccgat	420

ggcacaactc ccagagtat gttgcagttc atgtacgttc caccctgggc ccccaaacct	480
caaggagagat attcgttca gtggcaaact gcaaccaacc catcagtatt ttgcaaaatg	540
atgtaccctc ctccacaggat ttccgttcc ttcatgtcac cagctagtgc ctaccaatgg	600
ttctacgatg ggtacccaaac attcgatgat cgaccggcca cctcaaaccac cccgtacgg	660
cagtgcggcca ataacatgat gggcacatc gcagtgcggg ttgtcagcaa gaccccgacc	720
acacgggatc tgcgtgttagt agtgcatacg cgctgaaac acgtgcgcgc atgggtaccg	780
agacctatcc gatctcaacc ctatatttggaaaactacc caaattatgatg tggcacaag	840
ataaacgtcga catctaagga taggcaaagc atcaaaaacaa ca	882

<210> 30  
<211> 894  
<212> DNA  
<213> Enterovirus

<220>  
<221> misc\_feature  
<222> (0)...(0)  
<223> CA10, strain Kowalik

<400> 30

ggcgaccccg tggaggacat catccacgac gcttgagca gcactgtgcg gcggggccata	60
actagtggtc aagatgtcaa cacagcgcc ggtaccgctc ctatgtctca caggttggag	120
actggtcgtg ttcccgccct acaagcagca gaaactggag ccacttctaa cgctacagat	180
gagaacatgatg tagaaacgcg gtgtgtcatg aacagaaatg gagtgttggaa ggcgactata	240
atgcattttct tctcacgctc aggtttgggt ggtgttgc atctaactga cggaggcacc	300
gataacaacgg gatatgcagt gtgggacatt gacatcatgg gttttgtcactgcggcgg	360
aaatgtgaga tggcacata catgagattc aacgctgagt tcacattcgt cactacaaca	420
gaaaatggcg aggcaaggcc atttatgta cagtatatgt atgtacctcc aggtgcccct	480
aagccaaacgg gtagagatgc ttttcagtttgg caaacagcga caaatccatc cggtttcg	540
aagctcacag atccacacgtc tcaggtatca gtcccttca tgcacactgc tagtgctac	600
caatggttct atgacgggtt tccaacattt ggacaacacc cggaaacatc taataacaaca	660
tatggacatg gcccataacaa catgatgggg acctttgttg tgagagatgt gagtagatg	720
gctagccagc tcaaactaca gacacgagtg tatatgaagc ttaagcatgt gagagcatgg	780
atcccttaggc caataagatc ccacgccttac ctctaaaga atttccaaa ttatgatgt	840
agtaagatca catacagcgc aagagatcgt gcccacataa aacaagctaa tatg	894

<210> 31  
<211> 912  
<212> DNA  
<213> Enterovirus

<220>  
<221> misc\_feature  
<222> (0)...(0)  
<223> CA11, strain Belgium-1

<400> 31

ggccaatacg aagaaatcat ctcaactgtt gccagtaacg cggtggcgc cagtcaaccc	60
aagccagtgg acaactctgt acaaaaacacc caacaaatgt ctccagtgca tagccaggag	120
gtgccagcat tgaccgcagt ggagacaggg ggcgacaaatg atgtgggtcc atctgaccta	180
attcagacta gacacgtatt gaatgttaaa tccaggtctg aatccaccat cagtcattt	240
tttgcaagag ctgcgtgtt aaccattatg cagggtggaca atttcaacgc aacctctgt	300
gaagacaaa gaaagggtt tgctaaatgg gcaatcacct acactgatac cgtccagctg	360
agacggaaat tagagtttt cacttattct agatttgact tagagatgac ttttggct	420
actgagagat actactccca aagctcaggg catgctagat ctccaggtgtt cccaaattatg	480
tatgttccac caggggcacc caccgcctgt gcatgggacg actacacatg gcaaaatcc	540
tccaaacccat ccattttctt taccaccggc aatgcaccac cgcgcatttc aattccattt	600
gttggaatcg ccaatgcata ctcacactt tatgtggct ttagtagatgt acctttggag	660
ggagaaaacaa cagacacagg agacgccttac tacgggctca cttcaataaa cgattttgt	720
acacttgcag tcagggatgt taatgactac aaccacggca gggtggagac aaggattaga	780
gtatacatga agcccaaaca tggagatgc tgggtggccgc gacctccaag agcggtaagc	840
tacagaggac ctggagtcga ctccttatca acatcgtaa cacctttatc caaacatgac	900

ctagcgacat ac

912

<210> 32  
 <211> 888  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> CA12, strain Texas-12

&lt;400&gt; 32

ggagatacag	tgagtgatat	gatcgaaaat	tccatcaacc	gaattaccag	tgcaatttcc	60
actacccaga	cacaccagac	agcagctgac	actagagttt	gtacacacag	gttaggcacg	120
ggggagggtc	caccttaca	agcagcagag	acaggtgcca	cctccaaacgc	aaccgacgag	180
aacatgattt	aaacacgctg	tgtcgtaac	aggcacgggg	tgagcgagac	cagcgtggaa	240
tacttcttct	ctcgctctgg	tttggcagga	atagtcatcg	tggaggatgc	aactgccact	300
aataagggtt	atgcccacatg	ggagatttgc	gtcatgggtt	tcgcgaact	gcgtcgcaag	360
ctggagatct	tcacatacat	gcccgtcgat	gcagagttca	ctttgtggc	aacagaacgc	420
aatgggagca	ccagcccggt	catgatgcag	tacatgttcg	tgcccccctgg	cgccccctgtt	480
ccaaacaggga	gagatacctt	ccaatggca	tctgtacta	acccttca	gcttagtaaaa	540
atgacggatc	caccggccca	agttgccatc	ccctttatgt	ctccagctag	tgcataccaa	600
tgtttctatg	atggataatcc	taccttttgg	gaaagaccag	ttacaaccaa	catgaattat	660
ggacagtgtc	ccaaacaacaa	aatgggaact	ttttgtatac	gcactgtctc	cggtgaagcgc	720
tcaaggaaaa	acatcaactat	acgtatttt	atgaggttga	agcatgtaa	agcgtgggtg	780
cctcgcccaa	ttagaagcca	gctatatcg	cttaaaaatt	accccaactt	tgataacact	840
aagatctca	acgcctccca	caacagagct	tctatcacat	caaacacaa		888

<210> 33  
 <211> 927  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> CA13, strain Flores

&lt;400&gt; 33

gggttggaaag	atctaataca	acaagttgct	tctaaacgcac	tacaattgtc	ccagccaaaca	60
agaccggcac	tcccaccagc	cgagcagagt	gtccccaaaca	ctaaccacaa	aactcccgaaa	120
cactccaagg	aagtcccagc	gttaacggca	gttggaaactg	gcgcacgaa	tcctcttagag	180
cctggcgaca	cagttcagac	tagacatgtg	atacaaacta	gaagtagaa	tgaaagtaca	240
gtggagtctt	tctttgcg	agggtgcatgt	gtaaccatta	tgggagtgg	caactataat	300
gagacattga	aaggagacca	gaagtctact	ctatttacaa	cctggAACAT	cacctacact	360
gacacagtcc	agctacggag	aaaactggaa	atgttca	actccaggtt	tgacatcgag	420
tttacttttgc	tggtgcactga	acgctactac	tcatcaaaca	gtgggcatgc	tctgaaccaa	480
gtgtaccaaa	ttatgtatgt	accaccttgg	gcaccagtgc	caaagaaaatg	ggatgattac	540
acctggcaaa	cctcttcaaa	cccgtccata	ttctacactt	atgggtcagc	accacccagg	600
atatccatac	cctttgtggg	tatagcaaac	gcttactccc	acttctatga	tgggtatgcg	660
acagtgcct	tgaaaactga	caccacagac	tcaggagcag	cctactatgg	agcagtatcc	720
ataaacgact	tcggactgct	tgcaatcg	gtcgtaatg	aacataatcc	agtcagagta	780
tcatccaaa	ttagagtgt	tatgaaacca	aaacatgtca	gggtatgg	tcccagaccc	840
ccaagggtcg	tagagtattt	ttggaccagga	gtggactaca	aggcaaacac	tttaacacccg	900
ttgccaataa	agaatttgc	tacttat				927

<210> 34  
 <211> 888  
 <212> DNA  
 <213> Enterovirus

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (0)...(0)

&lt;223&gt; CA14, strain G-14

&lt;400&gt; 34

ggtgacaaag	tggcagacat	gattgagacc	gcagtggaga	agaccgtgtc	ctcactaact	60
tccccttattc	aaaccccccac	agccgccaac	acaaacgtga	gtaatcatcg	aattgagctg	120
ggggaaagtcc	cggcttgca	agctgctgaa	accggcgcga	cgtctcttgc	gtctgatgaa	180
tacttgatag	agactcggtt	tgttagtgaat	agccatagta	cagagggaaac	tacagtgggg	240
cacttctttt	caagagcggg	gttggtgaaa	gtgattgacc	tcccattaca	ggaaacagtc	300
aacacaggag	gattcgccctc	gtgggatatt	gatgtatgg	gatatgttca	gatgagaagg	360
aaacttgagc	tgttcacata	tgcccgcttc	gatgcggagt	ttaccttcat	agcttccacc	420
ccagatggcg	aggtgaagcc	agtgttctt	cagtagatgt	tcgtcccccc	tggtgaccca	480
aaaccaacag	ggcgaacac	ctacgaatgg	caaactgcaa	caaacccttc	tgtgtggtc	540
aagagcacag	atcctccagc	acaagtctct	gtaccgttca	tgtcaccagc	cagcgcataat	600
cagtggttct	atgacggta	cccaacctt	ggaaaggcacc	tgcctgctga	tgactttcaag	660
tacggatata	ccccaaataa	catgatggg	tcgttctgt	ccaggatagt	gggggaagga	720
gcgcctagtg	tacacttggt	tatccgtatc	tacatgcgc	tgaaacacgt	gcgggtgtgg	780
attccacgac	ctatgcgcag	ccagccatac	gttgcgaaga	attaccctaa	ctacaagggt	840
tctgagatca	agtgcgcata	atctagtcgt	aagtcaatca	ccacattna		888

&lt;210&gt; 35

&lt;211&gt; 912

&lt;212&gt; DNA

&lt;213&gt; Enterovirus

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (0)...(0)

&lt;223&gt; CA15, strain G-9

&lt;400&gt; 35

gggccaata	aggagatcat	ctcgaccgtc	gccagcaatg	cacttgcct	cagtcagcct	60
aaaccgggtg	ataattctgt	acaaaacacc	caacagagcg	cgccccgtca	cagccaagag	120
gttccagcat	taacagcgt	agagactgga	gcaacaagt	atgtggtgc	agctgatcta	180
gtgcaaaacca	ggcatgttagt	gaatgtcaag	tccagatctg	agtccactat	cagtcgttc	240
tttgcagag	ctgcctgcgt	gactattatg	caggttgata	actttaatgc	caccaccacg	300
gaggacaaga	ggaagttatt	tgccaaatgg	gccatcacat	acacagacac	agtacaattg	360
aggaggaaat	tggaaatttt	cacgtactcc	agttcgatc	ttgagatgac	tttcgtgc	420
actgaaagat	actattctca	gagctcgga	cacgctagat	cgcaggtgt	tcaaatacatg	480
tacgtccctc	caggagcacc	aacaccaa	gcatggatg	attacacgt	gcagacgtct	540
tctaaccat	caattttctt	caccactgtt	aacgcacccc	cacgggtt	aatcccat	600
gtgggcattt	caaatgctt	ctcacactt	tatgtatgg	tcagcagggt	acctttggaa	660
ggagagacca	ctgactcagg	tgacgctt	tatggcctca	cttctatcaa	tgactttgg	720
acacttgcag	taagagtgg	caatgactac	aaccagcg	gagtggagac	aaggatcaga	780
gtctacatga	aacctaagca	tgtgagatg	tgggtccac	gacccttag	ggctgtgagc	840
tacagaggac	ccgggtgtga	cctactgtcc	acctcagt	cgccccat	taagcatgaa	900
ttgacaacgt	ac					912

&lt;210&gt; 36

&lt;211&gt; 918

&lt;212&gt; DNA

&lt;213&gt; Enterovirus

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (0)...(0)

&lt;223&gt; CA17, strain G-12

&lt;400&gt; 36

ggcattgaag	acttgatcca	acaggttgca	tcgaatgcgc	tgcaaatctc	acagccgacg	60
cgtccggcac	tgcctctac	agaaagtctt	cccaacacac	aacaatggc	accttcgc	120
tctcaagagg	tcccggcgct	gacagcgtt	gagacaggcg	cgacaaatcc	attggagccg	180

tctgacacgg	tacaaacaag	gcatgttata	cagactagat	ccaggtcaga	gtccacaata	240
gagtccttct	tcgcgcgtgg	tgcgtgtg	acaatcatga	cagtgaaaaa	ttttaacgcg	300
actgaggcgg	cagacaagaa	aaagttgtc	gccacttga	atattacata	cacagacaca	360
gtcagctca	gaaggaagtt	ggagatgtc	acttactctc	gatttgcacat	tgaatttacc	420
tttgcacca	cagaaaggta	ctacgccagt	aactcaggcc	atgcgcgtaa	tcaaggttac	480
caactcatgt	atgtacccccc	aggagccct	gtgccacaac	aatggatga	ttacacgtgg	540
caaacttct	ccaaaccatc	ggtgtttac	acatacggt	acgctccagc	gcccattttc	600
ataccattt	tagggatagc	taatgcctat	tccactttt	atgacggcta	tgcagtggg	660
ccattgaaag	attccaccca	ggatgctgg	gctgcctatt	atggtcaac	ctcaattaat	720
gattttggaa	tgttggcgtt	gagagtagtc	aacgaattca	accagccag	aatcacatct	780
aaattgagag	tgtacatgaa	accaaagcat	gttaggggt	ggtgtccctag	accaccaagg	840
gtggtgccgt	acttcggacc	cggtgttgc	tataaggata	gtttgacacc	gctttctaca	900
aaagactca	acacttat					918

<210> 37

<211> 927

<212> DNA

<213> Enterovirus

<220>

<221> misc\_feature

<222> (0)...(0)

<223> CA18, strain G-13

<400> 37

ggcttggaaag	acctcatcca	acaagtggcc	acgaatgcatt	tgagtcgtc	gcagccaca	60
agacccgcac	ttccaccaggc	agaacaaagg	gtgccaaaca	ccagtcagac	caccccgaaa	120
cattcaaagg	aagtacccgc	actcaactgca	gtggagaccg	gtgcaaccaa	cccatggaa	180
ccagggtgaca	cagtgaaac	tagacatgtt	gttcaaaca	gatcaaggag	cgaaagtacg	240
gtggaatctt	tcttgcaag	agggcgtgt	gtcacgatta	tgggagttga	caattacaat	300
gaaagcttga	ccagtagtca	aaaatccacc	ctattcgca	tttggaaat	tacatacact	360
gatacagtagc	agttgaggag	aaaattggaa	atgttccac	actccagatt	tgacattgaa	420
tttaccttcg	tagtaactga	acgttactac	tcgtcaaaca	gtggccatgc	tttgaatcag	480
gtgtatcaa	tcatgtatgt	gccaccaggc	gcttcaattc	ctaagaagtg	ggatgattat	540
acctggcaaa	catcatcaaa	cccctcaata	tttccacac	atggAACAGC	accacccaga	600
atttcgatcc	ctttgtggg	cattacaaac	gcgtactcac	atttttatga	cgatgatgcg	660
actgttaccac	tcaagacaga	cactacggat	ccggggcgg	ccttctatgg	agcagttcc	720
atcaatgact	ttgggttgcgt	ggcgggtgcgt	gttgtcaacg	agcacaaccc	gttaagagt	780
tcttcaaaga	taagagtgt	catgaagcct	aaacatgtca	gagtgtgg	cccacgacca	840
ccacgtgccg	tggagtacta	cgaccagg	gttagattaca	aggcaaacac	attgacacact	900
ctccctacca	agaacttaac	tacttat				927

<210> 38

<211> 888

<212> DNA

<213> Enterovirus

<220>

<221> misc\_feature

<222> (0)...(0)

<223> CA19, strain 8663

<400> 38

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gttcaagata	cgcaatctag	tggaccagg	aactcaaaag	aagtacctgc	attaacagct	120
gttcaaacag	gggctactag	tcaagttgac	ccatcagacc	taatagaaac	tagacatgtt	180
attaataacc	gcctcagatc	tgagtgcaca	atagaatcat	tctttgggag	gtcagcatgt	240
gtggccataa	ttgggttata	taacccaaaa	cccaccagg	acaatgcagc	caagctctt	300
gctacatgga	agattagtt	tcttgatgt	tatcaattga	gaagaaaaatt	ggaattcttc	360
acatactcca	gatgtatct	tgagttacc	tttgcatttt	cagaaagatt	cttcacactca	420
acttcagctg	ctgcaagaga	ttatgtatac	cagatcatgt	acattcccc	aggagccct	480
atccctcagg	tatggatga	ttacacatgg	caatcatcca	caaaccctc	aatattctac	540
accacaggaa	atgcatgccc	tagagtgtcc	atcccttttgc	ttgggatcgg	tgcagcatac	600

tctcaacttct atgatggatt ctcttagta cctttcaata ccatcgatgc tggtgcttca	660
aacaggtacg ggtacaccac cataaatgat tttgggacta tggcaatcag gatagttat	720
gaatacgcacc cagtcacaat ttagtgcaaaa gtcagggttt acatgaaacc aaagcatatt	780
aagggtgtgtt gccccagacc tccacgggca gtagcataca atgggccaac agtgaatttt	840
aatgaaaacc cccatgtaat gacagcagtt gctgatatta gaacttat	888
<210> 39	
<211> 909	
<212> DNA	
<213> Enterovirus	
<220>	
<221> misc_feature	
<222> (0)...(0)	
<223> CA20, strain IH-35	
<400> 39	
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cccaagcacac aacagagttt accaaacact agtagctcg aaccaactca ctctcaggaa	120
gcccggcat tgaccgcagt agaaacagga gcaactagta gcgttagtacc agctgatctg	180
gtccagacgc ggcacatgtat acaaacacgt agccgaagt agtctacagt tgagtcatcc	240
tttgctcggg gggcgtgtgt aacaatcatg tcaatggaaa attacaatga aaccgctatc	300
gcagagtc aattatattac caagtggaaac attacatcaca cagacacagt ccagtggaga	360
agaaaactag agatgttac atactccaga tttgatattt agttcacatt tgggtgact	420
gagcgttacc actccgcataa ctcaggcat gcactaaatc aagtttacca gatcatgtat	480
gttcctccag gtgcaccagt gcccacaaaga tgggacgact acacatggca aacgtcatcc	540
aacccttcag tcttttatac ctatggatac gcaccagcca gaatatcgat tccatatgt	600
ggcatagcca atgcctactc gcattttat gatggcttcg ccaaagtgcc cattgaaggc	660
gagacgttag atccaggtga tgcatactat ggtcaacgt ccatcaatga ttgcgcac	720
ttagccatac gtgtggtcaa cgaacacaat ccagtgcag tttcttccaa gattagagt	780
tacatgaaac ctaaacatgt ggcgtttgg tgcccagac cacctagagc tgttccatac	840
tttggccccc gggttgatta taaaggtgac gcccacac cactatcagc caaggattta	900
accacccat	909
<210> 40	
<211> 888	
<212> DNA	
<213> Enterovirus	
<220>	
<221> misc_feature	
<222> (0)...(0)	
<223> CA22, strain Chulman	
<400> 40	
gggattgagg atacaatcga aaaagtggtt ggtgatgctc taagggtctc aatgccacaa	60
gttgccaca cccagccatc aggaccgt aattctaagg aagttccagc actgacagca	120
gtggaaacac gtgcacccatc tcaagtccacc cctgaagatt tgatcgaaac caggcatgtt	180
attaacaata gactaaatc tgagtgact gtggaggcct tcttggaaag gtctgcatgt	240
gttgccatcc ttgggtt aaacaaaaag ccagacacca caaatgcca agaccccttt	300
acaacatgga gga tta cctgcaaact tatcaactga ggagggaaact cgaactcttc	360
acgtatctca gattt ggaatttaacg tttgtcatta cagaaagata cttttcagg	420
acagcagcca caaccatc ttatgtttac caaataatgt atgtaccacc aggagcccc	480
ataccaaata cctgggacca ctacacctgg cagtcatcta ccaacccctc tgccttctac	540
accacaggca atgcccagccc acgcacatgtat ataccctttg ttggattgg tgccgcctat	600
gctcactttt atgacgggtt cagttgttga ccatcaatc aaatagatgc aggacatcc	660
aacaaatatg gctactcatc aatcaaagac tttggatcat tggcagttag aattgttaat	720
gagtttgatc cagtgacaat agagctaa gtcagagttt acatgaaacc caaacatgtc	780
agggtgtgtt gtccaaagacc acctcgatgc gtaccatatac aaaactcatc agttgatttc	840
gccccaaacg cagtagcaat gaaccaagta gcccacacca ggacgtat	888
<210> 41	
<211> 915	

<212> DNA  
<213> Enterovirus

<220>  
<221> misc\_feature  
<222> (0)...(0)

1488-43

<400> 41	ggtatcgaag ataccattga cactgtcatt	aacaatgccc tacaactatc tcaaccacag	60
ccaaaataagc agttgacagc tcagtttacc	ccctccacaa gtggagtaaa ctcccaggag	120	
gttccagctc tgaccgtgt ggaaaccgg	gcctcgggac aagcagtgcc cagtatgtg	180	
attgagacca gacacgtggg taattataag	acccgatctg aatctactct tgagttttc	240	
tttggaaaggc cagttgtgt caccataatt	gaggtcgaga acttcaatgc cactagtgaa	300	
gcagacaaga gggaaacaggc caccacttgg	ccaatcacat acaccaatac cgtgcaattg	360	
cgcaggaaac tagaattctt cacttactcc	aggtttggacc tagagatgac cttttgtatg	420	
acagaaagat attatgccag caacacagg	cacggccagaa accaagtgtt tcaaataatg	480	
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tcgaatccgt cagtctttt cacttatggg	agtgcctccac ccaggatgtc tataccgtat	600	
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gacgaaacag cgactcagg tgatactttt	tacgggttag tcaccatcaa tgattttgg	720	
accttagcaa taagagtgtt gaatgaattt	aacccagcta ggattacatc aaaaatttaga	780	
gtgttatatga aacccaaagca tgtaagatgc	tggtgcccta gaccaccacg tgcaatgc	840	
taccgtggc aaggagtaga ttttaattca	agttcaatca caccactaac agcagtcgca	900	
aacatcaaca cattc		915	

<210> 42

<211> 852

<212> DNA

**<213> Enterovirus**

<220>

<221> misc\_feature

$\langle 222 \rangle \ (0) \bar{\dots} (0)$

<223> CB2, strain Ohio-1

<400> 42

agcccagtgg	agaatccat	tgagagaagc	atggcagag	ttgctgacac	cattggtagt	60
ggaccatcca	attcgaggc	aataccggca	ctcacagcag	tagaaacagg	acacacatca	120
caggttacac	ctagtgacac	gatgcaaaca	agacatgtc	acaactacca	ttcaagggtcc	180
gaatccagcg	tagagaactt	cctggcacgc	tcggcttgtg	tgtttatac	aacatacacc	240
aacggtaaaa	aaaaaaatgc	cgc当地aaagag	aagaagtttgc	caacgtggaa	agtgagtgtt	300
agacaagccg	cccaactaag	aagaaagcta	gagttattca	catacttacg	ctgtgacatc	360
gaattAACAT	tgc当地tcatcac	cagtgcacaa	gatccatcga	ccgcttaccaa	cttgatgtg	420
ccagtggtga	cccatcaaat	aatgtacgtc	ccacctgttgc	gtccagttccc	tgaaccgtg	480
gacgattaca	actggcaaac	acttacaaat	ccc当地gcttt	tttggactga	agggaaatgc	540
cctccacgc	tgtcaatttcc	attcatgagc	ataggcaatg	cctatagat	gttctatgtat	600
ggttggtccg	agtttaggca	tgacgggttg	tacggcctga	atacccttaa	caatatgggc	660
acaatatatg	ctaggcacgt	caacgctgac	aaccaggta	gcatcaccag	cacagtgaga	720
ataatactca	aacccaaaca	tgtcaaggca	tggattcctc	gccccctcg	tttggcacag	780
tatcttaaag	ccaataatgt	gaatttttag	atcaccgatg	tgacagaaaa	gagagatgt	840
ctcacgacca	cg					852

<210> 43

<211> 846

<212> DNA

**<213> Enterovirus**

<220>

<221> mis

<222> (0) . . .

<223> CB6, strain Schmitt

&lt;400&gt; 43

agcccagtgg	agggcgccat	agagagagcc	attgcacggg	tcgctgacac	tatgccaagt	60
ggcccaacca	attcagaagc	agtgcctgcc	ctgacagcag	tggaaacggg	ccacacctcc	120
caagtctcc	ccagtgataa	catgcaaacc	aggcacgtga	agaagtacca	ttcacgctcc	180
gaaaccagcg	tcgagaactt	tctgttagg	tctgcatgtg	tatattttac	cacatataag	240
aaccagacag	gggcgaaaaa	tagatttgc	tcttggtaa	tcaccacaag	acaagtggcc	300
cagctcagga	aaaaactaga	aatgtttacg	tacttgcgtt	tcgacattga	actcaccttt	360
gtcattacaa	gtgcgcaaga	ccaatccact	atttcccaag	acgcccctgt	gcagacacat	420
cagataatgt	acgtgccacc	gggaggccca	gtgccaacca	aagttgacga	gtatgtgtgg	480
caaacatcca	ccaaccccaag	cgtctttgg	accgagggtt	acgctccacc	acgtatgtca	540
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cacgttaacg	ggcccaaccc	agtaccaatt	accagcacag	tgaggatata	ctttaagccc	720
aagcatgtt	aggcctgggt	gcctaggcct	ccaaggctt	gccagtacaa	aacgtttagg	780
caagtcaact	ttacagtgac	tggagtgacc	gagagttagg	caaataataac	caccatgaat	840
actaca						846

&lt;210&gt; 44

&lt;211&gt; 852

&lt;212&gt; DNA

&lt;213&gt; Enterovirus

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (0)...(0)

&lt;223&gt; E1, strain Farouk

&lt;400&gt; 44

ggtgatgtgc	agaatgctgt	cgaaggggct	atggtcaggg	tggcagatac	agtgcaaact	60
tcagccacaa	actcagagag	ggtgcctaac	ttgacagcag	tagaaactgg	tcacacttcg	120
caggtatgtac	ctgggtgatac	catgcagact	agacatgtga	tcaacaatca	cgtgaggtca	180
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gctcaactac	gtagaaaact	ggaaatgttt	acttacctac	ggttgacat	ggaaatcacc	360
gtggtcattt	caagctcgca	agatcagtct	acatcacaaa	accagaatgc	accagtgcta	420
acacaccaga	taatgtatgt	accaccaggg	ggaccatac	ccataagcgt	ggatgattac	480
agctggcaaa	catccaccaa	ccccagtatc	ttttggaccg	aagggaacgc	tccggcacgc	540
atgtcaattt	catttatttag	cataggcaat	gcgtatagta	atttctacga	tgggtggct	600
cacttctccc	agactggcgt	gtatggctt	actactctga	acaacatggg	tcaattgttc	660
ttccggcact	taaacaagcc	caacccagcc	gctattacaa	gtgtggcgcg	catttacttc	720
aaaccgaaac	atgtacgcgc	ttgggtgcct	agaccaccgc	gcttgtgtcc	atacatcaat	780
agcacgaatg	tcaactttga	acccaagcca	gtgactgaag	tacgtaccaa	cataataaca	840
acgggtcct	tc					852

&lt;210&gt; 45

&lt;211&gt; 882

&lt;212&gt; DNA

&lt;213&gt; Enterovirus

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (0)...(0)

&lt;223&gt; E2, strain Cornelis

&lt;400&gt; 45

ggagatgagg	tgaagcatga	acccacagtg	gccaacacaa	cagcaagtgg	accatcaaat	60
tcacaacaag	taccggact	cacacgtgt	gagactggc	acacctcaca	gggtttcca	120
agcgataatcca	tacaaaccag	acatgttac	aattaccata	gtagaactga	atccacccctg	180
gagaacttcc	tcggaagatc	agcatgcgt	cacattgact	cgataagac	caaggagtg	240
accggcgaga	gcacccggta	cgcacatcatgg	gagatcacca	ctcgcgagat	ggtgcaagtg	300
cggaggaagt	gtgaacttt	cacctacatg	cgatatgatc	tagaaatcac	gtttgtgatt	360
acaagtgcgc	aggagcaagg	ggccaaactg	tcgcagaaca	tgcctgttatt	aacacatcag	420
atcatgtatg	tcccaccggg	cggcctata	ccaaccagca	acgagagtta	cgcttggcaa	480

acgtcaacga acccaagcgt gttttggaca gaaggaagct cgccaccacg aatgtcaata	540
ccgtttgtta gcataggaaa cgcatacagc aatttctatg atgggtggtc gcacttctca	600
caaaacggtg cgtatggta cacggacta aacaagatgg gtaggatatt cgtgcgccat	660
gtaaacaaag agacaccact gcaagtcata agcacaatac ggatgtatata gaagccaaa	720
cacgtgcggg cttgggtgcc aagaccacca cgcctgtgtc catacctgcg ggcgggtgat	780
ataaacttg aagtgactga ttttacagaa aaacgaaata acatcaatta tgtcccaacc	840
ccatcccaca gcagcagtgt gcacatgcgc ttgaacaacc at	882

<210> 46  
 <211> 879  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E3, strain Morrisey

<400> 46

ggggacgtcg aagaggcaat tgatagggca gttgcgaggg tggctgacac aatgccaacc	60
ggtccaccaa acactgagag cgtgcctgccc ctgacagcag tagagacagg ccacacctca	120
cagggtcggtc ctggtgacac aatgcagacg aggcatgtta agaactatca ctccaggaca	180
gagtcatcaa ttggaaaactt cctgtgcagg gctgcgtgc tgatataaac aacataaaa	240
ttagctgtg gaacacccac agagcgatata gcaagttgga ggataaacac caggcaaatg	300
gtgcagctca ggagggaaatt tgagctttc acataacttgc gcttgacat gaaaatcaca	360
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actcatcagc tcatgtatata cccacctggg ggccctgttc ctaacagtgc cacagattt	480
gcatggcaat catcaactaa tccaagtata ttttggacgg aaggctgtgc tccagcacga	540
atgtcggtgc cggtcatcag cattggcaat gcctacacca attttacga tgggtggtcg	600
catttcaccc aagaagggtt ttatgggtt aactcaactga acaacatggg ccacatatat	660
gtgaggcacg tcaatgagca aagcctgggt gtctcgacca gcaccgttc cgtgtat	720
aaacccaaac atgtcggtgc ttgggtacca agaccacca gactgtgccc atacactaag	780
agttcaaatg tgaatttcaa accgaccgct gtcactgtatg agcgaaagga tatcaacgtat	840
gtaggcaccc ttcgaccaac agtgtacact aacttgtgt	879

<210> 47  
 <211> 843  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E4, strain Pesacek

<400> 47

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ggtcctcaa ataatgaagc tataccaaat ttaacagcag tggagactgg ccataacctcg	120
caagtgcacac caggcgacac aatgcaaaaca cgcctgtgg tgaacatgc caccgcgtct	180
gagtcgtcca tcgagaattt cctggcacgt tcagcatgcg tgcgtactt tgattaccaa	240
acggggagaag ggcccggcga tcagttttt gcccgtgg ccattaccac gaggagggtt	300
gcccgttc gtcggaaagct ggagatgttc acttatctaa gatttgacat gaaaatcaca	360
atcggttacat ctagttcaca ggtcaatct accatctcg acccgatata accagtttg	420
acgcacccaa ttatgtatgt accaccagga ggaccaatcc cagcaaaaatg cgtatgattac	480
agttggcaaa catccacgaa tcccagcgta ttctggactg aaggaaatgc gcctgcccgr	540
atatccatcc cattcattag cttggaaat gcatacaga gctttatga cgggtggtcg	600
aacttctcac aaaacggcg gttatggctac aataccctca acaacatggg acaattgttc	660
tttagggacg ttaacaaacc cagccctaatt actgtcaca ggcgtcgcccg cataacttc	720
aaggcttaagc acgtgagagc ttggatcccg cgaccaccgc ggttggatcc atacataaat	780
gcgggagacg tgaacttcac tccgacacca gtgactgaaa agcgaaagga cctaataacc	840
acg	843

<210> 48

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<211> 843
<212> DNA
<213> Enterovirus

<220>
<221> misc_feature
<222> (0)...(0)
<223> E4, strain DuToit

<400> 48
ggagatgtc aggacgcagt ggctgggccc atagtgcgtg tggctaatac tctccatca 60
ggccctcaa acaatgaggc tataccaaac ttaacagccg tagaaactgg acacacctcg 120
caggtgacac cgggtgatac aatgcagacg cgccacgtag tgaacatgca cactcggtt 180
gagtgcgtcaa tcgagaactt cctggcgcgg tcagcatgtg tatactacctt cgattaccga 240
acaggaacgg ggcctggcaa tcaatacttt agccagtgga ctattaccac aagacaggtt 300
gcccagctgc gtcgaaaatt ggagatgttc acctatctaa ggttgcacat ggagatcacg 360
attgtataaa cgagttcaca agatcagcct accgtccgaa acccagacac accggctt 420
acacaccaaa tcatgtatgt gccaccaggaa gggcaatcc cagcaaagggt cgacgattac 480
tgttggcaaa catccacaaa ccccaagtgtc ttctggactg aagggaacgc accagcccgg 540
atatccatcc cgttcatcag tgcggaaat gcatatagta gtttctacga tggatggtca 600
aatttctcgc aaaaatgggcg gtatggctac aacaccctga acaacatggg gcaattgttt 660
ttcaggatcg tcaataaaacc cagttccaaac actgtcacaa gtgttgcggc catataacttc 720
aagcccaaaac acgtgaaggc atgggtcccg cgaccaccgc gattgtgccc ttacattaat 780
gctggagatg taaatttcac cccacatcg gtcactgaga agcgagcgag cctgataacc 840
aca 843

<211> 49
<212> DNA
<213> Enterovirus

<220>
<221> misc_feature
<222> (0)...(0)
<223> E4, strain Shropshire

<400> 49
ggggacgtgc aagatgccgt gactggagcc atagtgcgtg tcgcccacac actgcacacg 60
ggaccctcga acaacgaagc aataccaaat ttgacggccg tggaaacagg gcatacatcg 120
caagtgacac caggcgatac aatgcagacg cgtcacgtgg tcaacatgca cacccttca 180
gagtcatcaa ttgagaactt cctagctcga tctgcgtgtg tgtattacctt cgactatcaa 240
acagggtcag gacctggcac ccaatacttc ggccagtgga ccatctccac aaggagagtt 300
gcccacactgc gcccgaagtt ggaaatgttc acctacctaa gatttgacat gggaaataaca 360
atcgtgatca ccagtgcga agatcactcc accatctcaa atccagatac accaatcatg 420
acgcacccaaat ttatgtacgt accaccagg ggtccaaatcc cggcgaaggt cgacgactat 480
agctggcaaa catctacaaa cccttagtgc ttttggacag aagggaacgc acccgccccgc 540
atatccattc cattcatttag tgcggaaat gcctatacgaa gcttctacga cgggtggtca 600
aatttctcgc aaaaacggccg atatggatac aacacttgc acaacatggg acaactattc 660
ttcagacacg tgaataaggc cagccccaaac accttcacaa gtgttgcggc tgtataacttc 720
aagcccaaaac acgtgaaggc gtggatttca cgaccaccgc gattatgtcc atacataaaat 780
gcggggagacg tgaatttcaaa accaacaccc gtgaccgaaa agagggcgag cttaatcacc 840
aca 843

<211> 50
<212> DNA
<213> Enterovirus

<220>
<221> misc_feature
<222> (0)...(0)
<223> E5, strain Noyce

```

<400> 50

ggagactcg	agcacgcagt	ggaaagcgcc	gtatctaggg	tggcagatac	aattatgagt	60
ggccgcgtcaa	actccccaca	ggtccccgct	cttactgcag	ttgaaactgg	acacacatcg	120
caagttgttc	caagtgatac	catccaaacc	agacatgtgc	agaatttcca	ctcttaggtcc	180
gagtcgacca	ttgaaaattt	cctgagtagg	tcagcatgtg	tgcatatcgc	caattacaac	240
gcgaaggggcg	ataagacgga	tgtggacagg	tttgacaggt	gggagatcaa	cattcgtgaa	300
atggtgcaac	tacgtaaaaa	gtgtgagatg	ttcacatatac	tacgctatga	tattgaagtt	360
acatttgtt	taaccagcaa	acaggatcag	ggccccaac	taaaccagga	tatgcctgtt	420
cttaccacc	aaattatgt	cgtacccca	ggaggttcag	tacctagcac	cgttgagagc	480
tatgcgtggc	aaacatcaac	aaaccctagc	gtgttttgg	ccgaggggaa	cgctccagct	540
agaatgtcca	taccctttat	cagcataggg	aacgcttata	gtagcttcta	tgatggatgg	600
tcacacttta	ctcaaaaagg	ggtctacgga	tacaacacat	taaacaagat	ggggcagcta	660
tttgcagac	atgtgaacaa	acagaccccc	acgcccagtt	ctagtaccat	aagggtttac	720
ttcaaccaa	agcacattag	agcttgggtc	cctaggcccc	cgcggttatg	cccctatgt	780
aacaagacaa	atgtaaaactt	catcaccaca	caggtaacag	aacctacaaa	tgacctcaat	840
gacgtgccc	agtctgagca	taacatgcac	acatat			876

<210> 51

<211> 867

<212> DNA

<213> Enterovirus

<220>

<221> misc\_feature

<222> (0)...(0)

<223> E6, strain D'Amori

<400> 51

aacgacgttc	agaacgcgg	ggaacggtca	attgttcgtg	tagcggacac	attacccagt	60
gggccaagca	actcagaaaag	cataccagca	ctcacacag	ccgagactgg	acataacctcg	120
caggtcgtcc	ccagcgacac	catccagacg	cgacatgtg	ggaattttca	cgttcggtct	180
gagtcatcg	tagagaattt	tcttagcagg	tcagcttgcg	tgtacatcgt	ggagtacaaa	240
acccgggaca	cgactcccga	caagatgtat	gatacttgcg	ttatcaatac	caaacaagtg	300
gcgcagggt	gaaggaagct	ggagttctt	acctatgtca	gattcgtacgt	ggaagttacc	360
tttgcataa	ccagcgtgca	agatgactcc	acaaaacgga	acacccgacac	cccagtgc	420
actcatcaaa	ttatgtatgt	gcccgcagg	ggggccatac	cacaagcgg	ggacgattat	480
aactggcaaa	cttccaccaa	ccccagcgt	ttttggactg	aggggaacgc	gccaccaagg	540
atgtctattc	cgttcatgag	tgttggcaat	gcatacagta	acttctacga	cgggtggtcc	600
cactttctc	aaactgggt	ttacgggtt	aacaccctaa	acaacatggg	taagtatata	660
ttcaggcatg	taaacgcacag	gactattagc	ccaatcaaaa	gtaaggtcag	aatatatttc	720
aaacccaaac	acgtgaaggc	atgggtaccc	agaccgcgg	gattgtgtga	atacaccac	780
aaggataaag	tggactatga	accaaagggg	gtcacaacat	cacgcacttc	aatcaccatc	840
accaactcca	cacacatgga	gacgcac				867

<210> 52

<211> 867

<212> DNA

<213> Enterovirus

<220>

<221> misc\_feature

<222> (0)...(0)

<223> E6, strain Cox

<400> 52

aatgacgttc	aaaatgcagt	cgagcaatca	attgttcgtg	tggctgacac	gttacccagt	60
ggacccagta	attcagagag	cataccggca	ctgacggccg	ccgagactgg	ccatacttct	120
caagttgtgc	ccagtgatac	tatacagaca	cgccacgtaa	aaaacttca	tgtgaggtcg	180
gagtcgtcg	tagagaactt	tctcgttagg	tccgcttgcg	tgtatatagt	gggatataag	240
accacagatg	cgacccctga	aaaaatgtat	gacagctgg	ttatcaacac	aaggcaggtg	300
gcccggctaa	ggagaaaatt	agagttctc	acctatgtt	ggtttgatgt	tgaggtcacc	360
tttgcataa	caagcgtgca	agacgattca	actagacgga	acacagacac	ccccgttct	420

acccaccaaa	tcatgtacgt	accccccagg	gggcccac	cgcaaggc	ggacgactac	480
aattggcaaa	cttccacaaa	tcccagtgt	tttggacag	aaggaaatgc	cccaccaaga	540
atgtccatac	cattcatgag	cgtaggtaa	gcatacagca	atttctatga	tgggtggct	600
cacttctctc	aaactgggt	gtacggttc	aacaccctga	acaacatggg	caagctatac	660
ttcaggcatg	tgaacggcaa	gacaataa	cctatcgcaa	gcaaggtag	gatttactc	720
aaaccaaagc	atgtgaaggc	atgggtgccc	agaccaccgc	gatttgtgt	atacacccac	780
aaggacaatg	tggattacga	accaaaggga	gtcacaacat	cccgtacatc	tatcacaatt	840
agcaattcca	ctcatatgga	aacatata				867

<210> 53  
 <211> 867  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E6, strain Burgess

<400> 53

aacgacgttc	agaacgcgg	ggaacggtca	attgttcgt	tagcggacac	attacccagt	60
gggccaagca	actcagaaag	cataccagca	ctcacagcag	ctgagactgg	acataccctcg	120
caggtcgtcc	ccagcgacac	catccagacg	cgacatgtga	agaatttca	cgttcggtct	180
gagtcatcg	tagagaattt	tcttagcagg	tca	ttgtacatcg	ggagtacaaa	240
acccatgaca	cgactcccga	cgagatgtat	gatagctgga	ttatcaatac	cagacaagtg	300
ggcgcagg	gaaggaagct	ggagttttt	acctatgtca	gattcgacgt	ggaagttacc	360
tttgcataa	ccagcgtgca	agatgactcc	acaagagaca	acaccgacac	cccagtgtca	420
actcatcaa	ttatgtatgt	gcccggagga	gggcccatac	cacaagcggt	ggacgattat	480
aactggcaa	cttccaccaa	ccccagcgta	ttttggactg	aggggaacgc	gccaccaagg	540
atgtctattc	cgttccctgag	tgttggcaat	gcatacagca	actttacga	cgggtggctc	600
cactttctc	aaactgggt	ttacgggtt	aacaccctaa	acaacatggg	taagttat	660
ttcaggcatg	taaacgcacag	gactattagc	ccaatcaca	gcaaggtag	aatatattc	720
aaacccaac	acgtgaaggc	atgggtaccc	agaccgcgc	gatttgtgt	gtacacccac	780
aaggataacg	tggactatga	accaaaggga	gtcacaacat	cacgcacttc	aatcaccatc	840
accaactcca	cacacatgga	gacgcac				867

<210> 54  
 <211> 876  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E7, strain Wallace

<400> 54

ggcgcacaccc	aaacggctat	tgacaatgca	atcgccagg	tagcagatac	ggtggcgagc	60
ggtcctagta	attcgaccag	tatcccagca	ctcacagcag	ttgagacagg	tcacacgtca	120
caagtcgagc	ccagcgatac	agtgc	agacatgtca	aaaactacca	ctcgcgtct	180
gagtcaaccc	tggaaaactt	tctaa	tcgcgtt	tgtacatcg	agagtactac	240
accaaggacc	aagacaatgt	taataggtac	atgtcg	caataatgc	cagaagaatg	300
gtgcattgt	ggagaaagtt	tgagctt	acatacatga	gatttgat	ggaaatcag	360
tttgcata	caagt	actac	actagcatag	cacaagat	gccgcactc	420
acccacca	tcatgtacat	accaccagg	ggcccggtac	caaacagcgt	aacagat	480
gcgtggcaga	catcaacaaa	ccccagatt	ttctggacag	aaggaaacgc	gccacctcgc	540
atgtctattc	cattcatcag	tattggcaat	gcatatagca	acttctatga	cgggtggtca	600
cactttccc	aaaacgggt	gtacggatac	aacgcctg	acaacatggg	caagctgtac	660
gcacgtcatg	ttaacaagga	cacaccatac	catgtca	gcacaatccg	agtgtat	720
aaacccaac	acatccgagt	atgggtccca	cggccgcctc	gactgagccc	gtacatca	780
tcaagtaatg	taaattttaa	ccccacaa	ctgacggacg	agcggtcata	catcacat	840
gtgcccac	ctatacgtcc	agatgtgcgc	accaac			876

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<210> 55
<211> 843
<212> DNA
<213> Enterovirus

<220>
<221> misc_feature
<222> (0)...(0)
<223> E8, strain Bryson

<400> 55
ggtgatgtcc agaatgcagt tgagggggca atggtagag ttgcagatac cgtgagcact      60
agcgccacca actccgaaca agtgcgaac ctgaccgcgg tggagaccgg tcacacatcg      120
caggtagtgc cccgcgacac tatgcagacc aggcacgtag tgaacaagca tgtgcgatct      180
aatctacaa ttgaaaattt cctcgacgt tcagcctgtg tgtactttct tgagtacaag      240
actggtagcca agactgactc caacgccttc agcaattggg tcatcacaac ggcgaagggtt      300
gcccgcgtga ggcgcaagtt ggagatgtt acatacttaa ggtttgatat ggagattact      360
gtggtcatca ctagctccca agaccgtcc acatcacaaa atcaaaatgc gcccgtcctg      420
actcaccaga ttatgtatgt accacctggt gcccgcgtgc ccactagcgt tgatgattat      480
tgctggcaaa catccacaaa cccaaagcata ttttggacgg aaggaaacgc acctgcccaga      540
atgtccatcc cctttatcag cattggaaat gcttatagca acttttatga tgggtggtca      600
catttctcac agaacggagt ctatggttt accaccttaa acaacatggg ccagctgttt      660
tttaggcattt ttaacaagcc taacccggcg acaataacca gtgtggcccg catttacttc      720
aagccaaaac atgtgagggc ctgggtgcct agaccgcac gggtgtgccc ttacatcaac      780
atgtgacacg tgaacttcga cccaaaaccc gtggcagagg tcaggtctag catcatcacc      840
acc                                         843

<210> 56
<211> 876
<212> DNA
<213> Enterovirus

<220>
<221> misc_feature
<222> (0)...(0)
<223> E11, strain Silva

<400> 56
ggtgatgtgg ttgaagccat tgagggcgca gttgctagag tagcagacac tatcagcagc      60
ggcccaacaa attctcaagc agtcccagca ctcacagcgg tggagactgg acacacctcg      120
caagttgtac caggtgatac catgcagacc agacacgtaa agaattacca ctcacgatca      180
aatcgcacca ttgaaaattt tctgagtagg gcggcttgg tctacatggg tgagtattac      240
actacaaaata cagatgagac caagagattt gctaattgga caatcagcgc aaggcgcata      300
gtacaaaatga ggaggaagct tgaatgttc acgtacgtcc gtttcgcgt ggaggtgaca      360
ttcgttaatta ccagcaacaa ggaccaagg aatcggttg gacaagat gcccccgctc      420
acacaccaga taatgtacat cccgcgcgtt ggtcgatatac ccaaataccac cacagattac      480
gcattggcaaa cgtgcacaaa ccccagcata ttttggacgg agggtaacgc gccccccagg      540
atgtccatcc ctttcatgag cattggaaac gcatatagca atttttatga cgggtggct      600
cacttctctc aaaatggcgat gacggatatac aacacactaa accacatggg tcaattatac      660
atgcgcctatc taaatggacg atcacctt ccaatgacca gcacgggtgag ggtgtacttc      720
aaccacaaaac atgtgaaaac atgggtgcac cgaccccaaa gattgtgcca atacaaaaac      780
gcctcgacacg taaacttttcc acccacaac atcacagaca agagggatag catcacttac      840
attccagaca ccgtgaaacc cgacatgaca acatat                                         876

<210> 57
<211> 861
<212> DNA
<213> Enterovirus

<220>
<221> misc_feature
<222> (0)...(0)
<223> E13, strain Del Carmen

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&lt;400&gt; 57

ggggatgaga	gtgcaaaggc	tacagttcc	aacacacagc	ctagcgggcc	aagtaattct	60
gtcagcgtgc	caatgcttac	tgctgcttag	accgggcaca	catctcaagc	agtacccagt	120
gacactatac	agaccaggtg	cgttagtgaac	caacacaaggc	gtcggaaatc	atccgtggaa	180
aatttcctgt	gtcgctccgc	ttgcgtatac	tacacaacct	atgacactca	cggggatgca	240
gccgacgcaa	agtacgcccag	ttggacgata	accacccgaa	aagctgcaca	gctgcggaga	300
aaactagaga	tgttacacata	cttgagggtt	gatttagaaag	tgacattcgt	tataacaagt	360
gcacaagtaa	catctaccaa	taaacgttag	gacacgcctg	ttctcacgca	tcaagtcatg	420
tacgtgccac	cagggtggtc	agtaccgcgt	agtgtggacg	attatgcgtg	gcagacgtcc	480
acaaacccaa	gtatcttctg	gacggaaggg	aatgcaccag	cacgcacgtc	tataccctt	540
atcagcgtgg	gcaacgcata	cagtagcttc	tatgatgggt	ggtccaaactt	tacacagaat	600
ggagtttacg	ggttcaacac	gctaaacaac	atgggaaagc	tatacgtacg	acacgtcaat	660
ggagctagcc	ccggccctgt	gaagagtacc	atacggtttt	acatgaagcc	caaacacgtg	720
aaggcttgg	tacccagacc	tcctcgccctc	tgcgagtagc	aaaaatcagg	aatgtaaac	780
ttcaaaacccaa	agggcgtgac	agagagccgg	acgtctatca	aatttagaaaa	accaaaccct	840
gcgtccaaat	taatgaacca	c				861

&lt;210&gt; 58

&lt;211&gt; 894

&lt;212&gt; DNA

&lt;213&gt; Enterovirus

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (0)...(0)

&lt;223&gt; E14, strain Tow

&lt;400&gt; 58

aatgatccag	agcaagctat	aaatcgccgc	ctagcgaggg	tggcagacac	agttcgtagt	60
ggccgtctta	actctgaaca	aattcccgca	ctgacagccg	tggagacagg	gcatacatca	120
caagtcgtcc	ccagtgacac	aatgcaaaacc	cggcatgtga	agaattacca	ctccagggtca	180
gagtcaacaa	tagagaactt	tttgcgttaga	tcggcttgcg	tgcacatcgc	aacatacaag	240
gctaaaggcg	gagctggaga	cgtcgaccgg	tacgacagct	gggacataaa	cataaaagag	300
ctggtacagt	tgcgacgcaa	gtgcgagatg	tttacgtacc	taagggttga	tatggaggtc	360
acctttgtga	ttaccagcat	acaggagcag	ggcaaaagcac	tgacccagg	catgcgggtg	420
ctaacgcacc	aaataatgta	cgttccacccg	ggcgggtggcc	tgcctagtgg	tgcagaaaagc	480
tttgcgtggc	agtcatcaac	gaatcccagt	gtgttctgga	cagaaggcaa	tgcaccagca	540
cgtatgtcta	taccctttat	aagtattggg	aacgcttaca	gtaatttcta	tatgggtgg	600
tcccacttt	cccagaacgg	tggttacggg	tacaacacac	taaacaact	ggtaagatc	660
tacgtcaggc	atgtgaacaa	acaaaccccc	acggatgtca	ccagcaccgt	gcgaatttac	720
ttcaagccca	aacacgtgcg	agcttgggtg	cctcgcccg	ctagactatg	tccttataag	780
aacaaggcaa	atgtaaactt	tgaagttact	agtgtaaacca	ctgccagaac	gagtcttaat	840
atgtccccca	ctcccaacca	cagtagtagc	gtgcacccgt	gcatgcacac	gcac	894

&lt;210&gt; 59

&lt;211&gt; 882

&lt;212&gt; DNA

&lt;213&gt; Enterovirus

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (0)...(0)

&lt;223&gt; E15, strain CH96-51

&lt;400&gt; 59

ggtgatgacc	aacacaagac	caatacagt	acagacacag	agcagagtg	cccgtaaat	60
tccgaacgcg	tcccagccct	cacagcagt	gagactggcc	acacttcgc	gtcgtaacc	120
agcgacacag	tgcaaactcg	ccacgtacgc	aattaccact	caaggacaga	gtctacctt	180
gagaattttc	ttggtaggtc	agcatgtgt	cacatcgaca	catacaaggc	taagggtgaa	240
aaaggatctt	ctgagaggt	cgcgtcatgg	gagataacta	acagggagat	gtgcaattg	300
cggccaaaat	gtgagatgtt	cacatatacg	aggtatgacg	tgaaaataac	atttgata	360
accagctacc	aggagcaggg	cacacgatt	gcccaggaca	tgcctgtact	aacacacca	420
atcatgtacg	tggcccccggg	tggccctgt	ccaacaagca	cgagagct	tgcacatggcag	480

acctaaccga acccttagcgt	ctttggact	gagggcaacg	caccaccgcg	tattccata	540
cccttcatca	gcataggaaa	tgcgtactgc	aactttatg	atgggtggtc	600
caagatgggt	cctatggcta	cacagcgctc	aatagaatgg	ggaaaatata	660
gtaaataagg	agaccccccac	acaggtcatt	agtaccgtga	ggatgtacat	720
cacatcgcg	catgggtgcc	cagacccccc	cggctgtgca	aatacctaca	780
atgaacttca	acgtggagga	cattacagag	gagcggAACG	atataaacc	840
cccagccaca	gcagtagtgt	gcgtgtgcgt	cttggcacca	ca	882

<210> 60  
 <211> 867  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E17, strain CHHE-29

<400> 60

ggtgatgttg	aggactcagt	aaacagagca	gtggtaggg	tagcagacac	catgccaagt	60
ggaccatcca	attcgcagc	agtacctgcc	ttgacagccg	ctgagacagg	tcacacgtct	120
caagtgggc	ctgggtataa	catccaaaca	cgtcatgtc	acaactacca	ctccagaact	180
gaatccagta	tcgaaaattt	cttcggcgt	tccgcatgt	tagtggtcaa	aacatataaa	240
atgggtcaaa	aagtgttagc	tacagacaga	tatgatagtt	ggatgatttc	cattagggac	300
atggtacaac	taagacggaa	gtgtaaaatg	ttcacgtaca	ttagatttg	tttagagatc	360
acttcgtgg	tcacgagta	ccaacaat	agtacatct	tgacacagga	catgccagt	420
atcacgcata	agttcatgt	tgtggcct	gggggtccgg	ttcctgagag	tgtaaatagc	480
tacgcttggc	aaacgtcaac	caatcccagt	atattctgg	ctgagggtaa	tgccccagca	540
aggatgtcca	ttcccttcat	cagtgtggg	aacgcata	gctgcttcta	cgatggctgg	600
tcacacttca	cacagaaggg	ggtttatgg	tataacaactc	tcaacaacat	ggcacaattt	660
tacatgcgc	acgtgaacaa	aaatagcccc	acagagatca	taagcactct	tcgtgttat	720
ttcaagccaa	agcacgtgaa	agcgtggta	cccagaccac	ccaggctatg	tccataaaaa	780
tataaggcaa	atgttgactt	tgaagtgtact	ccaatcacag	acaagcgaga	ctccataacc	840
agcataccag	tcccaagca	cactcat				867

<210> 61  
 <211> 861  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E18, strain Metcalf

<400> 61

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actatccaga	ccaggcacgt	gttaaacttc	cactcacgt	ctgagtccac	tatagaaaat	180
ttcatgggc	gtgcagcat	tgtgttcat	gatcagtata	aatcaatgg	agaagagacg	240
tccactgata	gttgcgcgt	gtggaccata	aacataaggg	agatggccca	attaagaagg	300
aagtgtgaaa	tgttacgta	catcggttt	gatatcgaga	tgacaatgg	cattaccagc	360
tgtcaagacc	agggAACGAT	actagatcg	gacatgcctg	tttgacgca	tcaaattatg	420
taatcccac	cagggggccc	aatcccgac	aaagttagata	gttacgagt	gcagacatca	480
acaaacccca	gcgtttctg	gacggaaagg	aatgcaccc	cgctatgtc	tattccattc	540
attagcgctg	gcaatgctt	tagctattt	tgatcggtt	ggtcacactt	cacacaggac	600
ggtacctatg	ggtataacaac	ccttaatgca	atggggaaac	tgtacatgg	gcatgtgaat	660
aggagcagcc	ctcatcgat	aaccacgac	atcagagat	acttcaaacc	caaacacatc	720
aaggcatggg	tgccccgacc	accacgattt	tgcccgtata	taaacaagg	ggacgtaaac	780
ttttagtca	cgagataac	agactcaagg	acttccatca	ctgatacaccc	acacccagaa	840
catagtgtcc	tggcaacgca	t				861

<210> 62

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<211> 879
<212> DNA
<213> Enterovirus

<220>
<221> misc_feature
<222> (0)...(0)
<223> E19, strain Burke

<400> 62
ggagacatcg tggaggctgt ggagggagcc atctcgcgag tggcagatac tgtagtagt 60
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caagtcaatc ctagtgacac catcagacc agacacgtga caaattacca ctcgcggtca 180
gaatccagca tagaaaaatt ccttagccgc tctgcttgtg tgatatatggg cgaatacagc 240
acacaagcat cagatgagac caaaaagtac atgtcatgga ccataagccc aaggaggatg 300
gttcaaattgc gcaggaagtt tgagctttc acttacctgc gtttgatgt ggagattact 360
tttgaatca ccagcagaca agtcaaggtt gggacacaat taggccaaga tgcccccccg 420
ctaactcacc aagtcatgtt tataccccca ggaggcccag tacctgattc agttgggtat 480
tacgcattgc agacttccac taacccttagt atcttttgc ccgaaggtaa tgcatcaccc 540
aggatgtcaa tacccttcat tagcataggt aacgcctata gcaactttt tgacgggtgg 600
tcgcattttc accagaatgg cgtctatgg tacaacacgc tgaaccatat ggggcaactg 660
tacgtgcggc atgttaacgg cccttcacca ttaccagtga caagcacagt cagggtctac 720
tttaaaccca aacacgtgaa ggcttggta ccgagggcac ccaggctatg tcaatatgtt 780
aatgcattca ctgtgaactt cgagccaaaca gacatcaactg agtcacgcac tgacatcaac 840
catgttccag acaccgtgaa gccagatctc caaacatac 879

<210> 63
<211> 843
<212> DNA
<213> Enterovirus

<220>
<221> misc_feature
<222> (0)...(0)
<223> E20, strain JV-1

<400> 63
ggggacgtgc acgatgcggg gttggggcc atgaccgtg ttgcagacac gataagtagt 60
ggcccaagca attcagaaag cgtgccagca ttgactgcag ccgagacagg acacacatca 120
caggtagtac cgagtatac catcagacc agacatgtgc ggaatttcca cacaagatca 180
gagtcttcaa tagaaaaatt catgagtgc tccgcctgtg tctactatac taagtataag 240
accaaagacc cggacccaac ggagatgtac tctagttgg agttaccac caggcaagtg 300
gcacaactca ggaggaagat ggagatgttc acttatttgc gctttgacgt agaagtgaca 360
tttgaataaa cttagctcgca agatcagtcc acgagtgtt cacaggacgc acctgttctc 420
actcaccaaa tcatgtacat cccacccgga ggcccgggtc ccaaattcagg tagggattac 480
tcatggcaat cctgtactaa cccaaatgtt ttctggactg aggttaatgc accaccacgc 540
atgtgtattt cgttcatgtt tattggaggg gcatatagtt cattctatga cgggtggtcc 600
cacttaacc aacaagggtcc gtacgggtat aacactctca atgacatggg tcaactgtat 660
tttaggcatg tgaacgaggg tagcccaggg gcggtaacaa gctacatca aatatacttc 720
aaacctaaac atattagac atgggtgccc agaccaccta gattgtgtca gtatgagaaa 780
caagggagcg ttgacttcaa ggtgcaggga gtaactgtat ctcgtacctc gtcaccact 840
aca 843

<210> 64
<211> 885
<212> DNA
<213> Enterovirus

<220>
<221> misc_feature
<222> (0)...(0)
<223> E21, strain Farina

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tcttggcaga	cctctacaaa	tcctagtgtt	ttctggacag	aaggaaatgc	ccagccgt	540
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cacttctcac	aatcggtgt	gtatgggtc	actacactca	ataacatggg	tcagttgtac	660
tttcgacacg	tgaacaagga	cacccttgg	ccatacaata	gcacggttc	gtttacttc	720
aaacccaaac	atgtgaaggc	atgggtaccc	agaccaccgc	gcctgtgcga	ctacgttac	780
gcacataatg	ttgacttcac	acccaaaaggg	gttactgaca	gcagggacaa	gatcaccctg	840
gaccgtgatg	aacacgtgcc	gtcagtggtt	aaccac			876

<210> 67  
 <211> 870  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E26, strain Coronel

<400> 67						
ggagatgatc	caccgcattc	gatctcaa	acggttgca	acaccaaccc	tagtggtcca	60
accaactcg	aaaggatccc	agcgctcaca	gcagcgaaa	ctggtcacac	ctcgccagg	120
gtcccgagt	ataccgtaca	aactcggt	gtgaaaaact	tccacactcg	atcgagg	180
tcaattgaga	acttttgt	cagatcagct	tgcgcacaca	tgtcatcgta	tgaggc	240
ccaacaacaa	cacaagacgg	tacacaaagg	ttcgccaa	ggacgattag	tgtgaaagac	300
atggtgca	tgaggaggaa	atgtgagat	ttcacgtact	taagattg	catggagg	360
acttttgta	taactagtgt	gatcgaaact	acaaaaggga	aagtaccggc	accagcagtc	420
acacaccaag	taatgtacat	tccaccaggc	ggacctattc	cagctagcgt	tgaaagtat	480
gcctggcaaa	catccaccaa	cccaagcgt	tttggacag	aaggaaatgc	tccccacgc	540
atgtctatac	catttatcg	cattggtaat	gcctacagca	tgttctatg	cgatgg	600
agtttcagac	aatcggtgg	atatggatac	agcaccc	accacatggg	ccagatattc	660
gtaagacacg	tgaatgcaac	cataccaaac	ttgatcagca	cagtcaggat	atattcaag	720
cccaagcacg	ttagggctt	gattcctaga	ccgcccagg	tgtgtcagta	catttacaag	780
gcaaatgtag	actacgcagt	gtcaaata	actgaaaagc	gagatagtat	aagatggaca	840
ccaaacccg	gtccgtcaat	gacatccc				870

<210> 68  
 <211> 855  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E27, strain Bacon

<400> 68						
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gtcctgcct	taacagcggt	tgagactg	cacac	aagttagcc	cagtata	120
gtacagacac	gacatgtgt	caactcacac	agtaggacag	agtcgacaa	tgagaattc	180
tttggagg	ctgcgtgt	gagggtg	gagta	tagggcatg	tttgcag	240
gacgaaacat	atgatagct	ggcattaca	gtgcgagaca	tgg	tcgttagg	300
tgtgagatgt	tcacata	gaggttgac	ttggaa	gtcgtatcat	caccagctat	360
caagaaccag	ggacaatcac	cacccaggat	atgcccgtcc	taa	gattatgtat	420
gtgccgc	gaggcccgg	cccagcca	gctgacagtt	acgcgtggc	aacgtcaaca	480
aatcccagta	tattctggac	cgaaggca	gctccac	ggatgtctat	cccat	540
ggcatggca	atgcata	cagctttat	gacgggtg	cgagttca	caactcgg	600
gtgtatggct	acacaacc	gaataacat	ggtaaactgt	acttcagaca	cgtgaa	660
cacagccaa	acactattaa	gagcactgt	aggatata	tcaagccaa	gcacgtcc	720
gcgtgggtcc	caagaccacc	gcttgc	ccgtatctg	ataagagg	tgtcaact	780
gaagtgcac	ccgttacgag	caagagagac	agtatta	gggtgccc	aacaaccgc	840
caagtgtaca	atcat					855

<210> 69

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<211> 876
<212> DNA
<213> Enterovirus

<220>
<221> misc_feature
<222> (0)...(0)
<223> E29, strain JV-10

<400> 69
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gggcctgcaa actcagagaca aatccctgccc ctaaccgcgtg ctgagactgg tcacacccctcg 120
caagtgttc ccagcgacac tatgcaaacc cgcgcattat gtaactacca caccagatct 180
gaatcatcga tcgagaacctt cctatgcagg gctgcattgtg tctacatagt gagttacaaa 240
acacaggcgcc acgaacaaac cgacaaatac gctagttggg agatcaacac gcggcagggt 300
gcacagttaa ggagaaaatt ggaattttt acttacataa gatttgacat ggaggtaaca 360
tttgtatca ctgggttcaca agacaccaggc acacagacta acacggatac gcccagggtcta 420
acccatcaaa ttatgtatgt gcctcccggt ggtccaggatc cgacatcgc cacagattac 480
agctggcaga catctacaaa tcccagtgtt ttctggacag aagggaatgc gcctccccgt 540
atgtccatac ctttcatgag cataggcaat gcgtatgcta atttctatga tgggtggtcg 600
caacttagcc agtcagggtt gtatgttac accacactca ataataatggg taccctgtat 660
ttcaggcagc tgaacaactc gaccatcggg ctttacacca gtgcagtttag gatataattc 720
aagccaaacg acgtcaaagc gtgggtgcca cgaccgcac ggttgtgcga ttacaaacac 780
aaaaagaacg tagactttac tcccacaggt gtgaccacaa ctagagacaa gataaccttgc 840
gacaaggggc ctcacgtgcc gagcgtatgg aacaca 876

<210> 70
<211> 876
<212> DNA
<213> Enterovirus

<220>
<221> misc_feature
<222> (0)...(0)
<223> E30, strain Bastianni

<400> 70
aatgaccccg aagggtgcact taataaagca gtgggcaggg tagctgatac tatacgatgt 60
gggcccgtca atacagagaca aattcctgca ttgacagcag tggagacagg gcatacatct 120
caagtgtac ctatgtacac aatgcaaaacc cgacacgtgg tcaacttcca tactagatca 180
gagtcatcgt tacagaacctt catggggaga gccgcattgtg tatatatcgc ccactatgcc 240
acagaaaagg ctaatgtatca tttggacaga tacactaact gggagatcac aactaggcag 300
gtggcacagt tgaggcgccaa gttggagatg tttacgtata tgagatttg cctcgagatt 360
acattcgtaa tcaccagcgtc ccagcgtact tccaaacaggt atgcgtcaga ctccccccca 420
ttaacacatc aaataatgtt cgtggcccg gggggtc当地 ttcccaagggtt ttagaaagac 480
tttgcctggc agacgtccac caacccaagt gtgttttggc ccgaaggtaa cgcgccttct 540
aggatgtcaa taccattcat gagcgttgc aacgcatttta gtaacttttta tgatggatgg 600
tcccattca gtcagagcgg tttgtacggg tacactacat tgaacaacat ggggcgttta 660
tatttttagac atgtaaacaaa atcaacagga taccctgttta atagtgtcgc cgcgtcttat 720
ttcaagccca agcatgtgaa ggcattggta cctcgcgcgc cacgctttag tccatatttgc 780
tatgctaaaa atgtcaactt tgatgtgca ggcgtgaccg agtcccgggg taagatcact 840
ctcgaccgtt cgactcaca ccccggttta accact 876

<210> 71
<211> 876
<212> DNA
<213> Enterovirus

<220>
<221> misc_feature
<222> (0)...(0)
<223> E30, strain Frater

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<400> 71  
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 gggccgtca acactgagca aattcccgca ttgacagcag tggaaacagg gcacacatct 120  
 caagtagtac ctatgtatac aatgcaaact cgacacgtgg tcaacttcca caccagatca 180  
 gaatcatctg tggagaactt catggaaaga gcagcgtgtg tgtatatcgc tcattatgtc 240  
 acagagaagg ctaatgtga tttagacaga tacaccaact gggaggtcac aaccaggcag 300  
 gtagcacagt tgaggcgtaa actggagatg ttcacgtaca tgaggttga cctcgagatc 360  
 acatttgtaa tcaccagctc ccagcgcact tcaaccaagt atgcgtcaga ttccccccca 420  
 ctaacacacc agataatgta tgtaccgccc gggggccca tcccaaggg ttatgaagat 480  
 tttgcctggc agacgtccac caacccaagt gtattttga cggaaggtaa cgccccccct 540  
 aggatgtcga taccattcat gagcgttggt aacgcatact gcaacttttgcgacggatgg 600  
 tcccatttca gccagagcgg tgtgtacggg tacactacat tgaacaacat ggggcacttg 660  
 tatttcagac atgtaaacaa atcaactgca taccctagttt acagtgttgc cccgcgtctac 720  
 ttcaagccca agcacgtaaa ggcttgggtg cctcgcgcc caccgtttag tccatatttg 780  
 tatgcaaaaa atgtcaattt tgatgtacaa ggtgtgaccg agtctcgcccc aaaaatctact 840  
 ctgtatcgat cgactcacaa ccctgtgtca accacg 876

<210> 72  
 <211> 877  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E30, strain Giles

<400> 72  
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 caagtgggtc caagcgacac catgcaaaca aggacacgtag tcaacatgca tacaagatcc 180  
 gaatccacca tcgaaaattt catggaaagg gctgcttggt tatacattgc gcaatacgcc 240  
 actgataagg ccagtgtatga tctggacagg tacaccagct gggagatcac tacgagacag 300  
 gttgcgaat tgaggagaaa gctggagctg tttacatatac tgaggtatga cttagaagtt 360  
 acctttgtca ttaccagttc ccagcgcact tcgactacat atgcatacga ctccccccca 420  
 ttgaccacc aaattatgta tgcctccc gggggcccta ttccatagg acacgaagac 480  
 ttgccttgc agacttcaac aaaccccagt gtcttttggc ctgaaggaaa tgccccacca 540  
 cgtatgtcca taccattcat gagtggtggc aatgcctact gcaattttta cgatgggtgg 600  
 tcacatttttta accagagtgg ggtgtatgga tacactacac taaacaacat gggtcgctt 660  
 tatttcaggc atgtaaacag atctactgcc taccctagttt atagtgttgc acgtgtttac 720  
 tttaaaccctt aacacgtcaa agccttgggtc ccacgagcac caccattgtg cccataacttg 780  
 tatgctaaga acgtgaactt taatgtgcaaa ggtgtgactg actcccgaga caagataacc 840  
 gtagaccgaa ccaaccatgtt acgtatgcgc accacag 877

<210> 73  
 <211> 876  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E30, strain PR-17

<400> 73  
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 gggccgtga actcggaaacg cgtacccgtca ctaactgcag tggagacagg gcataacgtct 120  
 caagtgggtc caagcgatac tatgcaaaca agacacgtag tcaacatgca cacaagatct 180  
 gaatccacta tcgaaaattt catggaaagg gctgcttggt tatacattcgc acaatacgct 240  
 actgacaaag ccagtgtatgtt tttggatagg tacaccagct gggaaatcac cacgagacag 300  
 gttgcgaat tgaggagaaa gttggaaatg ttcacatatac tgaggtatga cctggaaagtc 360  
 acctttgtta tcaccagttc ccagcgcacc tcgactacat atgcatacga ttccccccca 420  
 ttgactcatc agatcatgtt cgtgcctccc gggggcccca ttccatagg atacgaggac 480

ttcgccctggc aaacatcgac taaccctagt	gtctttgga ctgaaggaaa	tgccccacca	540
cgcatttcca ttccatttat gagtgtggc	aatgcctact gcaatttttta	cgatgggtgg	600
tcacacttta gccagagtgg ggtgtacgg	tacactacac taaaataat	gggtcgctcg	660
tatccaggc atgtaaacaa atctactgcg	tacccggta atagtgtgc	acgtattac	720
ttcaaaccca aacatgttaa agcctgggc	cccgagcac cacgactgtg	cccatattt	780
tatgcaagga acgtgaacctt taatgtgcaa	ggtgtgactg actcccgaga	aaagataacc	840
atagaccgaa ccaaccatgt gcccattgcgt	aacaca		876

<210> 74  
 <211> 876  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E31, strain Caldwell

<400> 74

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ggtcctagta acactgttgc tataccagcg	ctcaccgcgg cagaaacggg	ccacacatcg	120
caagtcaccc ccagcgacaa tcttcagacg	cgccatgtta agaactatca	ctccccgtct	180
gagtcaacta ttgaaaactt cctgtgtaaa	tccgcgtgtg tgcataattgc	gtcatacaac	240
gcatacggg atgttggatc agacagtaga	tatgatagtt gggagatcaa	catcagggaa	300
atggtgcagt taaggaggaa gtgcgaaatg	ttcacctatc tcaagatgtt	catggaggtg	360
acatttgc tcaactagcaa gcaagatcaa	gggacttcgc tatacacaaga	catgccatgt	420
ctaacacatc agatcatgtc cgtgccgcca	ggcgatccg tgcactact	cgtccagagc	480
tacgcattgc aaacatccac caacccgagc	gtgtttggc cagagggcaa	tgcccctgct	540
agaatgtcca tcccattcat tagcataggg	aatgcataca gcagcttcta	cgacgggtgg	600
tcacatttca cccacaacgg tggctatggc	tataatacac tgaacaagat	ggtaagttg	660
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tttaaaacca agcatgttag agcgtgggtg	ccaaaggccac ctagattgtg	cccgatcatc	780
aataaaacgg actgtaaactt cgctgttaca	ccactcacca aacagcggtt	aggaatcaac	840
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<210> 75  
 <211> 875  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E32, strain PR-10

<400> 75

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cagggttacc cggatgtatc aatgcaaaact	agacatgtac acaacttcca	caccagatcg	180
gagtcttagca tcgagaactt cctcagtaga	gcagctgtg tgcataatgg	gaaatatagt	240
agcaatgcaa caacacaaga tgaacaatac	atgtcatgg caattaatac	cagacatgt	300
gtgcagctga gacgcaattt cggaaatgtt	acccatctac gcttcgacgt	agaagtact	360
tttataataa catgcacca agatcaaggg	acacaggta	accaggatgc	420
tgccacccaa tcatgtatgt gcccacgtt	ggcccggtgc ctaagatgt	tgatgacttc	480
acatggcaaa cctctactaa cccttagtgc	ttttggtag	aaggcaatgc	540
atgaccattc cattcattag tatagggaac	gcctacagca	accaccgaga	600
cacttccttc aaaatgggtt ttacgggtt	gcttttatga	tggctggta	660
gtgagacaag tgaacctaaa agccctatg	aatgcactca	ataacatggg	720
aaacccaaac atatcaaagc ttgggtaccc	ccagtcagca	gtacagttt	780
tctgggagtg tcaattttga gcccactgtat	agaccaccgc	gtctatgtaa	840
atcccaaaaa ctttcagacc agatgtgaga	ttgacagaaa	aacggaaatc	875

<210> 76

<211> 843  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E33, strain Toluca-3

<400> 76

gggtgatgtgc atgatgcagt tgggggtgcg atgtcgcgcg tcgctgatac agtagcaagt	60
ggccctgcaa actctgagag cgtgcctgct ctcactgcgg tagaaaactgg acacacgtca	120
caggtgacac caagtgatac aatgcagacc agacacgtac acaaactcca cacacggtcc	180
gaatcgtaa tcgagaactt cttaagccgc tctgcattgtg tctattatgc aacgtacaaa	240
acaacagcca gcagagccga agaccaattt gtttaggttgtt ccatttcata cgcgcagggtg	300
gcccaactgc gcaggaaaat ggaaaatgttc acctacccgtc gctacgatgt ggagggtact	360
tttgcgttta caagttctca ggaccatcg accaacgtaa gccaggatgc tcctgtactc	420
acacatcagt taatgtacgt accccccggg ggtccagggtc ccaaaaattt aagagactat	480
gcatggcaaa catccaccaa cccgagtgtg ttctggaccg aggggaacgc accaccaagg	540
atatccatcc ctttatca gttggggcaac gcatacagtt gcttttatga tggatggtcc	600
cactactcac agacgggggt gtatggttac aacaccttaa acgacatggg ccaattattt	660
gtcaggcagc tgaatgaggg aagccgggt gcgggtgtcaa gtgttagttt gatttacttc	720
aaacccaaac atgtgaaggg atgggtcccg agaccaccac gttgtgcca atatgttaac	780
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aca	843

<210> 77  
 <211> 915  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> E34, strain DN-19

<400> 77

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ccgcagaaa aactcaactgc tcaatccacc gcctcatcca gcggagtcaa ttcacaagaa	120
gtgcgcgcgt tgaactgtgtt ggagacggga gcttctgtc aagccatacc cagcgcacgtg	180
attgagacca gacatgtcgtt caattacaaa actagatctg aatcaaccct tgagtcatc	240
tttggtagat cagcatgcgtt aaccatactg gaagtagaga acttcaatgc cactaccgaa	300
tcggacaaga aaaagcaattt caccacctgg ccaatcacat acaccaacac agtccagttt	360
cgcaggaaat tgaatttctt tacatactcc agatttgttgc tggaaatgac ttttgcata	420
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tccaaatccat cagtgttttta cacatatgtt agcgcgcctc ccagaatgtc tatccatat	600
gttggcattt ccaatgcata ctcacactt tatgacgggt ttggccgat tccccatgaaa	660
gatgatacaa ctgactccgg tgacactttt tatggatgg tcacccatca tgactttgg	720
acattggctg tgagggtggt gaatgagttc aaccctgcaaa ggataacatc aaaggcaga	780
gtttatatga agccaaacaa tgggggtgtt tgggtgtctt ggccaccgcg cgcagtgccc	840
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aatattaata ctttc	915

<210> 78  
 <211> 936  
 <212> DNA  
 <213> Enterovirus

<220>  
 <221> misc\_feature  
 <222> (0)...(0)  
 <223> EV68, strain Fermon

&lt;400&gt; 78

tcaaaccact	tacatggagc	agaggcagcc	tatcaggtgg	agagtatcat	caaaacagca	60
actgatactg	tgaagagtga	gattaacgccc	gaacttggtg	ttgtccctag	tctaaatgca	120
gttgaactg	gtgcaacttc	caacactgaa	ccagaagaag	ccatacaaac	tcgcacagta	180
ataaaatcagc	atggtgtgtc	ggagacgtta	gtggagaatt	ttcttggtag	ggcagcccta	240
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aacttttta	aatggacaat	taatactaag	tcttttgtcc	agttagaagaa	aaagctggaa	360
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gctagtggt	tctttaaaat	ttctgtatccc	ccagctagaa	tgactataacc	ttttatgtgc	600
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tgggctccac	gaccaccgcg	aaccatgcca	tacatgagca	ttgctaatgc	aaattacaaa	840
ggttagagata	cagcaccaaa	cacacttaat	gccataattt	gtaatagagc	gagtgtcaca	900
actatgcctc	acaacatagt	aaccaccgggt	ccgggt			936

&lt;210&gt; 79

&lt;211&gt; 861

&lt;212&gt; DNA

&lt;213&gt; Enterovirus

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (0)...(0)

&lt;223&gt; EV69, strain Toluca-1

&lt;400&gt; 79

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gaaagcatac	cggcacttac	tgcggctgag	actggccaca	catcgcaggt	tgtccctagc	120
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gcacatgata	aatacgcaag	ttggccaatc	acgactagaa	aagttgcccc	actgcgcagg	300
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gcccagatca	catccacgaa	ccaaaaccag	gatgccccag	tactcacaca	tcaggtgatg	420
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ggtgtctatc	ccggggccagt	caagagcacc	attaggatat	atatgaaacc	taaacatgtg	720
aaagcgttga	tacctaggcc	cccacgggtt	tgcgactatg	tgaatctgg	caacgtcaac	780
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gggcacaggc	tgacaaccca	c				861

&lt;210&gt; 80

&lt;211&gt; 7

&lt;212&gt; PRT

&lt;213&gt; Enterovirus

&lt;400&gt; 80

Met Tyr Val Pro Pro Gly Gly

1 5

&lt;210&gt; 81

&lt;211&gt; 7

&lt;212&gt; PRT

&lt;213&gt; Enterovirus

&lt;220&gt;

&lt;223&gt; Xaa(Position 3) = Val or Ile

&lt;223&gt; Xaa(Position 5) = Pro or Thr

<400> 81  
Met Tyr Xaa Pro Xaa Gly Ala  
1 . . . . 5

<210> 82  
<211> 7  
<212> PRT  
<213> Enterovirus

<220>  
<223> Xaa (Position 3) = Gln or His

<400> 82  
Phe Gly Xaa Gln Ser Gly Ala  
1 . . . . 5

<210> 83  
<211> 7  
<212> PRT  
<213> Enterovirus

<220>  
<223> Xaa (Position 3) = Ala or Val

<400> 83  
Thr Ala Xaa Glu Thr Gly His  
1 . . . . 5

<210> 84  
<211> 7  
<212> PRT  
<213> Enterovirus

<220>  
<223> Xaa (Position 7) = Ala or Val

<400> 84  
Thr Ala Val Glu Thr Gly Xaa  
1 . . . . 5

<210> 85  
<211> 7  
<212> PRT  
<213> Enterovirus

<400> 85  
Gln Ala Ala Glu Thr Gly Ala  
1 . . . . 5

<210> 86  
<211> 7  
<212> PRT  
<213> Enterovirus

<220>  
<223> Xaa (Position 2) = Phe or Tyr

<223> Xaa (Position 3) = Ile or Val

<223> Xaa (Position 7) = Ala or Gly

<400> 86  
Met Xaa Xaa Pro Pro Gly Xaa

